

SERVICE MANUAL

US Model

- TC-WE471 is similar to the earlier TC-WE305 (US) model.
- Refer to TC-WE305 service manual (9-960-691-XX) for information not contained in this service manual.

• DIFFERENCE TABLE

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Page	TC-WE305 (US model)			TC-WE471			
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	
17			EXPLODED VIEWS *****			EXPLODED VIEWS *****	
	* 6	3-935-621-01	PANEL, BACK		* 6	3-935-621-61	PANEL, BACK
18	53	A-2004-584-A	PANEL ASSY, FRONT	53	A-2004-624-A	PANEL ASSY, FRONT	

STEREO CASSETTE DECK
SONY[®]



MICROFILM

TC-WE305

SERVICE MANUAL

Ver 1.2 2003.12
With SUPPLEMENT-1
(9-960-691-81)



US Model
Canadian Model
AEP Model
E Model
Australian Model
PX Model

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism	DECK A TCM-YS47CZ-19
Type	DECK B TCM-YS47CZ-18

SPECIFICATIONS

System

Recording system

4-track 2-channel stereo

Fast-winding time (approx.)

120 sec. (with Sony C-60 cassette)

Bias

AC bias

Signal-to-noise ratio (at peak level and weighted with Dolby NR off)

Type I tape, Sony Type I (NORMAL):

55 dB

Type II tape, Sony Type II (HIGH):

57 dB

Type IV tape, Sony Type IV (METAL):

58 dB

Harmonic distortion

0.4% (with Type I tape, Sony Type I (NORMAL): 160 nWb/m 315 Hz, 3rd H.D.)

1.8% (with Type IV tape, Sony Type IV (METAL): 250 nWb/m 315 Hz, 3rd H.D.)

Frequency response (Dolby NR off)

Type I tape, Sony Type I (NORMAL):
30 - 14,000 Hz (± 3 dB, IEC)

20 - 15,000 Hz (± 6 dB)

Type II tape, Sony Type II (HIGH):

30 - 15,000 Hz (± 3 dB, IEC)

20 - 16,000 Hz (± 6 dB)

Type IV tape, Sony Type IV (METAL):

30 - 15,000 Hz (± 3 dB, IEC)

20 - 16,000 Hz (± 6 dB)

30 - 13,000 Hz (± 3 dB, -4 dB recording)

S/N ratio improvement (approximate values)

With Dolby NR on: 5 dB at 1 kHz,

10 dB at 5 kHz

— Continued on page 2 —

STEREO CASSETTE DECK

9-960-691-13

2003L02-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

Inputs

Line inputs (phono jacks)

Sensitivity : 0.16 V
Input impedance : 47 kilohms

Outputs

Line outputs (phono jacks)

Rated output level : 0.5 V at a load
impedance of 47 kilohms
Load impedance : Over 10 kilohms

General

Power requirements

Where purchased	Power requirements
US, Canadian model	120V AC, 60Hz
AEP, Singapore model	220 - 230V AC, 50/60Hz
Australian model	240V AC, 50/60Hz
E, PX model	120/220/240V AC, 50/60Hz

Power consumption

15 W (Continental Europe)
27 W (Other countries)

Dimensions (approx.)

430 x 120 x 305 mm (w/h/d)
(17 x 4 1/4 x 12 1/8 inches)
including projecting parts and
controls

Mass (approx.)

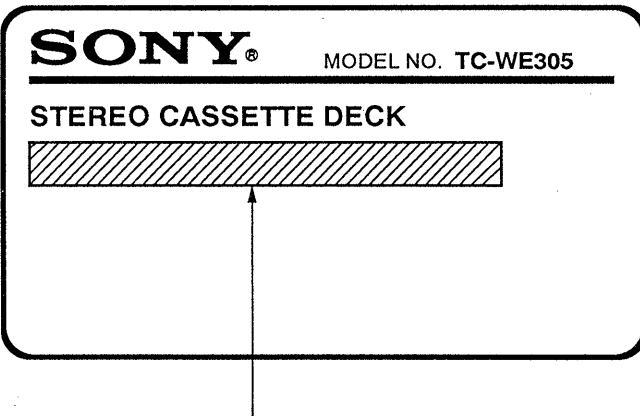
3.3 kg (7 lbs 4 oz)

Supplied accessories

Audio connecting cords (2 phono
plugs - 2 phono plugs) (2)

Design and specifications are subject to
change without notice.

MODEL IDENTIFICATION



US, Canadian model : AC 120V 60Hz
Australian model : AC 240V~50/60Hz
AEP, Singapore model : AC 220-230V~50/60Hz
E, PX model : AC120/220/240V~50/60Hz

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

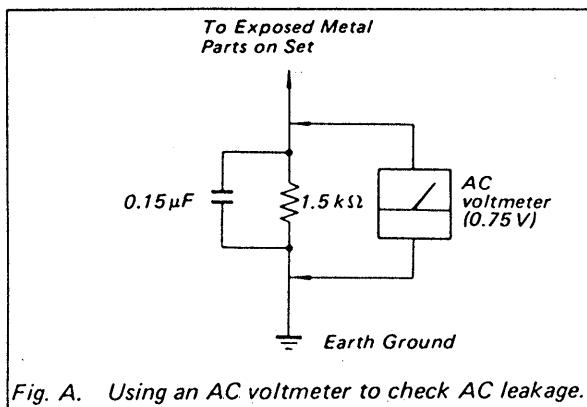


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

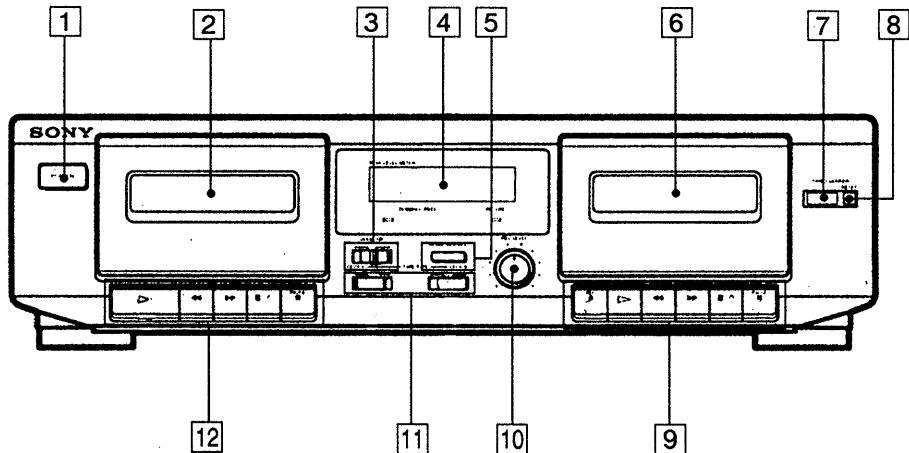
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

IDENTIFYING THE PARTS



[1] POWER switch	[10] REC (recording) LEVEL control
[2] Deck-A	[11] TAPE TYPE selector
[3] DOLBY NR ON/OFF switch	I (Normal) II / IV (CrO ₂ / Metal) } Deck-A
[4] Display	I (Normal) II (CrO ₂) } Deck-B
[5] DUBBING SPEED HIGH/NORM switch	IV (Metal)
[6] Deck-B	
[7] TAPE COUNTER	[12] Tape operation buttons (Deck-A)
[8] RESET (COUNTER) button	▷ (play) button
[9] Tape operation buttons (Deck-B)	◀ (leftward fastwinding) button
● REC (record) button	▶ (rightward fastwinding) button
▷ (play) button	■ / ▲ (stop/eject) button
◀ (leftward fastwinding) button	■ ■ PAUSE button
▶ (rightward fastwinding) button	
■ / ▲ (stop/eject) button	
■ ■ PAUSE button	

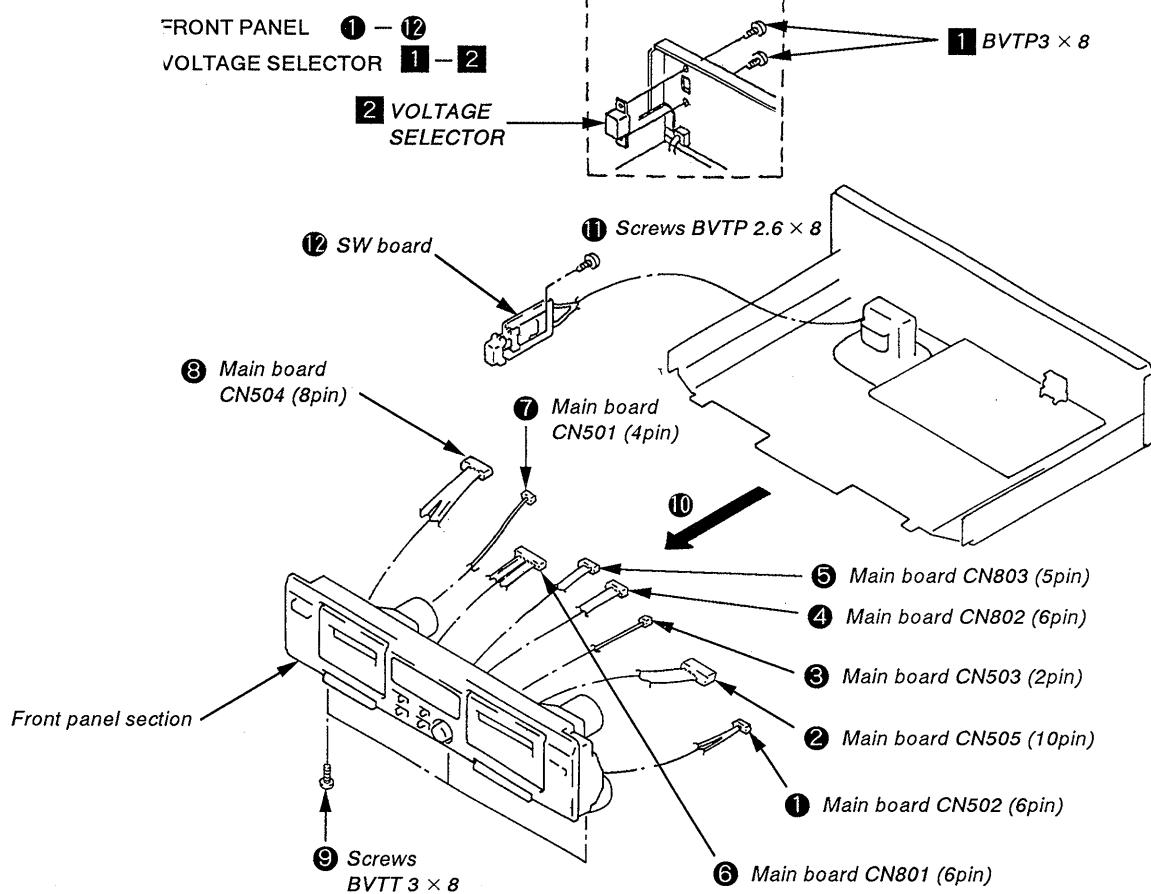
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

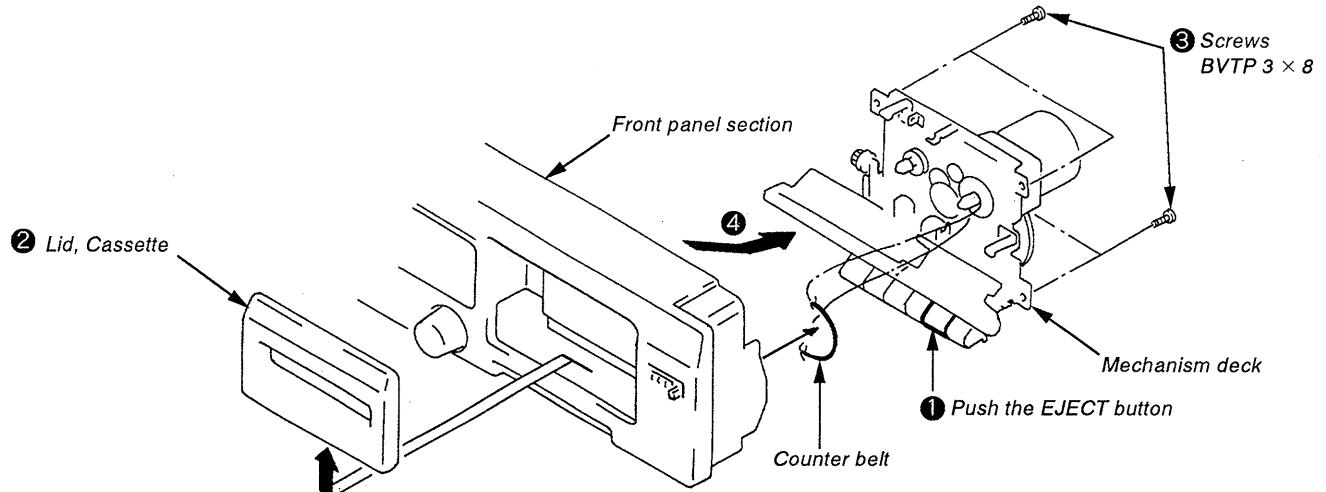
CASE

Unscrew the four case attachment screws M3 × 8 and remove the case.

2-1. FRONT PANEL REMOVAL



2-2. MECHANISM DECK REMOVAL



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab:

record/playback/erase head	pinch roller
rubber belts	capstan
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 70g • cm (0.42 to 0.97 oz • inch)
Forward back tension	CQ-102C	DECK-A : 1.5 to 5.5g • cm (0.020 to 0.076 oz • inch) DECK-B : 1.5 to 7g • cm (0.020 to 0.096 oz • inch)
FF/REW	CQ-201B	60g•cm or more (0.83 oz•inch or more)

• Tape Tension Measurement

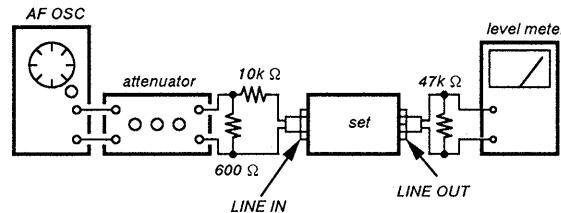
Mode	Tension meter	Meter reading
FWD	CQ-403A	more than 100g (3.53 oz)

3-2. ELECTRICAL ADJUSTMENTS

PRECAUTION

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustments and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF
TAPE TYPE switch : TYPE I (NORMAL)
REC level : min
 - Standard record position :
Deliver the standard input signal level to input jack and set the REC LEVEL control to obtain the standard output signal level as follows.

— Record Mode —



Standard Input Level

Input terminal	LINE IN
source impedance	10k Ω
input signal level	0.5V (- 3.8dB)

Standard Output Level

Output terminal	LINE OUT
load impedance	47k Ω
output signal level	0.5V (- 3.8dB)

Test Tape

Tape	Contents	Use
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

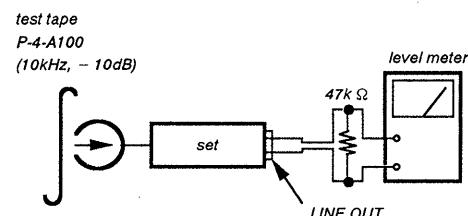
0dB=0.775V

Record/Playback Head Azimuth Adjustment

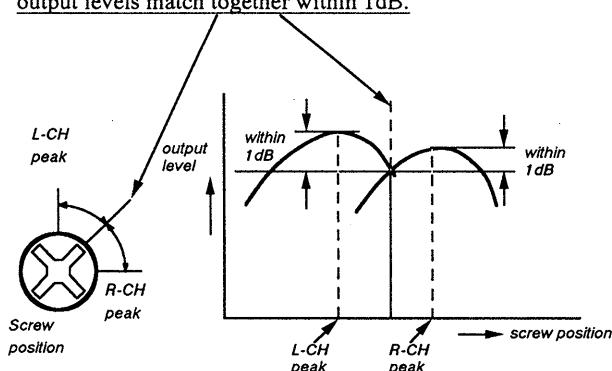
DECK-A **DECK-B**

Procedure :

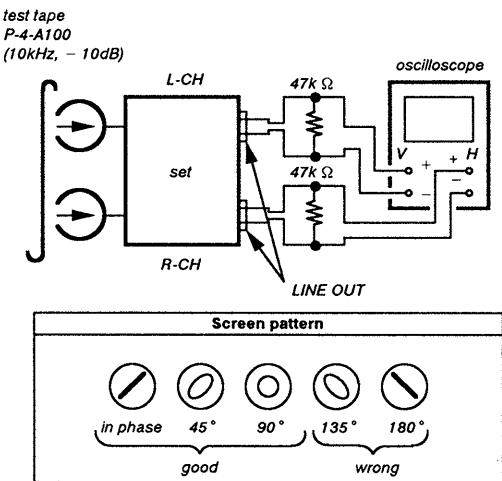
1. Forward playback Mode



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



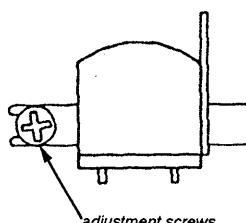
3. Playback Mode



4. Change the reverses playback mode and repeat the steps 1 to 3.

5. After the adjustment, lock the adjustment screws with suitable locking compound.

Adjustment Location : — record/playback head —

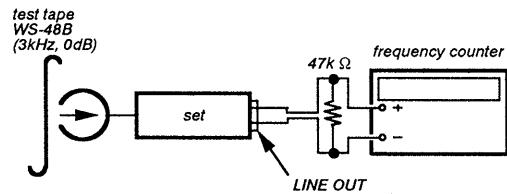


Tape Speed Adjustment DECK-A DECK-B

Procedure :

- Perform high speed adjustment before normal speed adjustment.

Mode : FWD playback



Specifications :

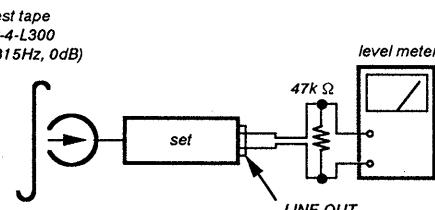
	Adjustment part	CNP506	Frequency counter
High speed	Deck A	RV501	SHORT
	Deck B	RV503	
Normal speed	Deck A	RV502	OPEN
	Deck B	RV504	

Adjustment Location : MAIN board (see page 9)

Playback Level Adjustment DECK-A DECK-B

Procedure :

Mode : FWD playback



DECK A is RV101 (L-CH) and RV201 (R-CH),
DECK B is RV102 (L-CH) and RV202 (R-CH)
so that adjustment within the following adjustment level.

Adjustment Level :

LINE OUT level : $-7.7 \pm 0.5\text{dB}$ (0.30 to 0.34V)

Level difference between channels : within 0.5dB

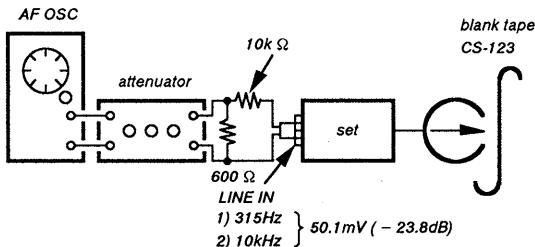
Record Bias Adjustment DECK-B

Setting :

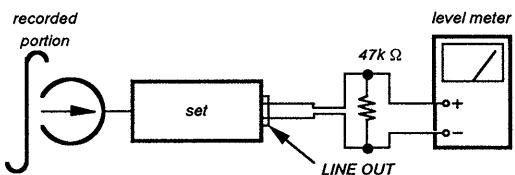
TAPE SELECT : TYPE - I (DECK-B)

Procedure :

1. Record Mode



2. Playback Mode



Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV105 (L-CH), RV205 (R-CH) and repeat the steps given above.

Adjustment Location : MAIN board (see page 9)

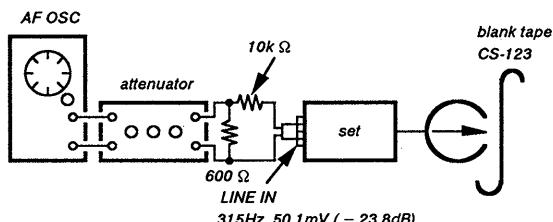
Record Level Adjustment DECK-B

Setting :

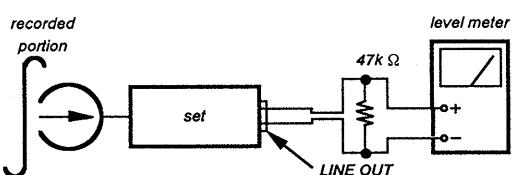
TAPE SELECT : TYPE - I (DECK-B)

Procedure :

1. Record Mode



2. Playback Mode



Confirm playback the tape recorded become adjustment level as follows.

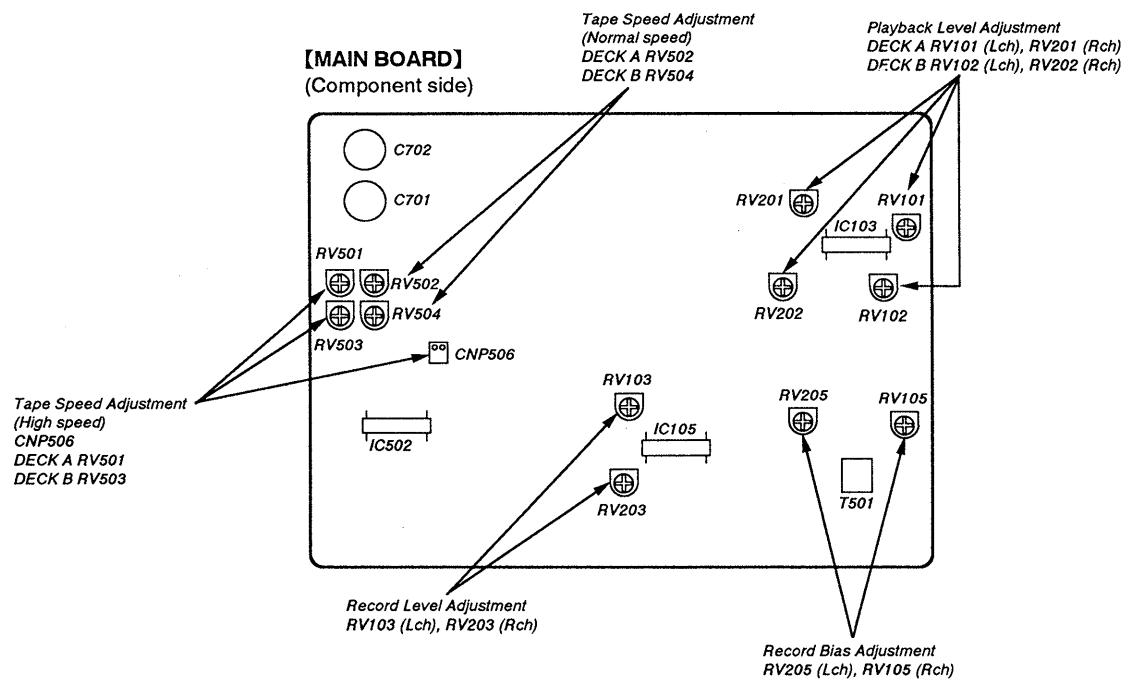
If necessary, adjust RV103 (L-CH), RV203 (R-CH) and repeat the steps 1 and 2.

Adjustment Level :

LINE OUT level : $-23.8 \pm 0.5\text{dB}$ (47.2 to 53mV)

Adjustment Location : MAIN board (see page 9)

Adjustment Location : MAIN board



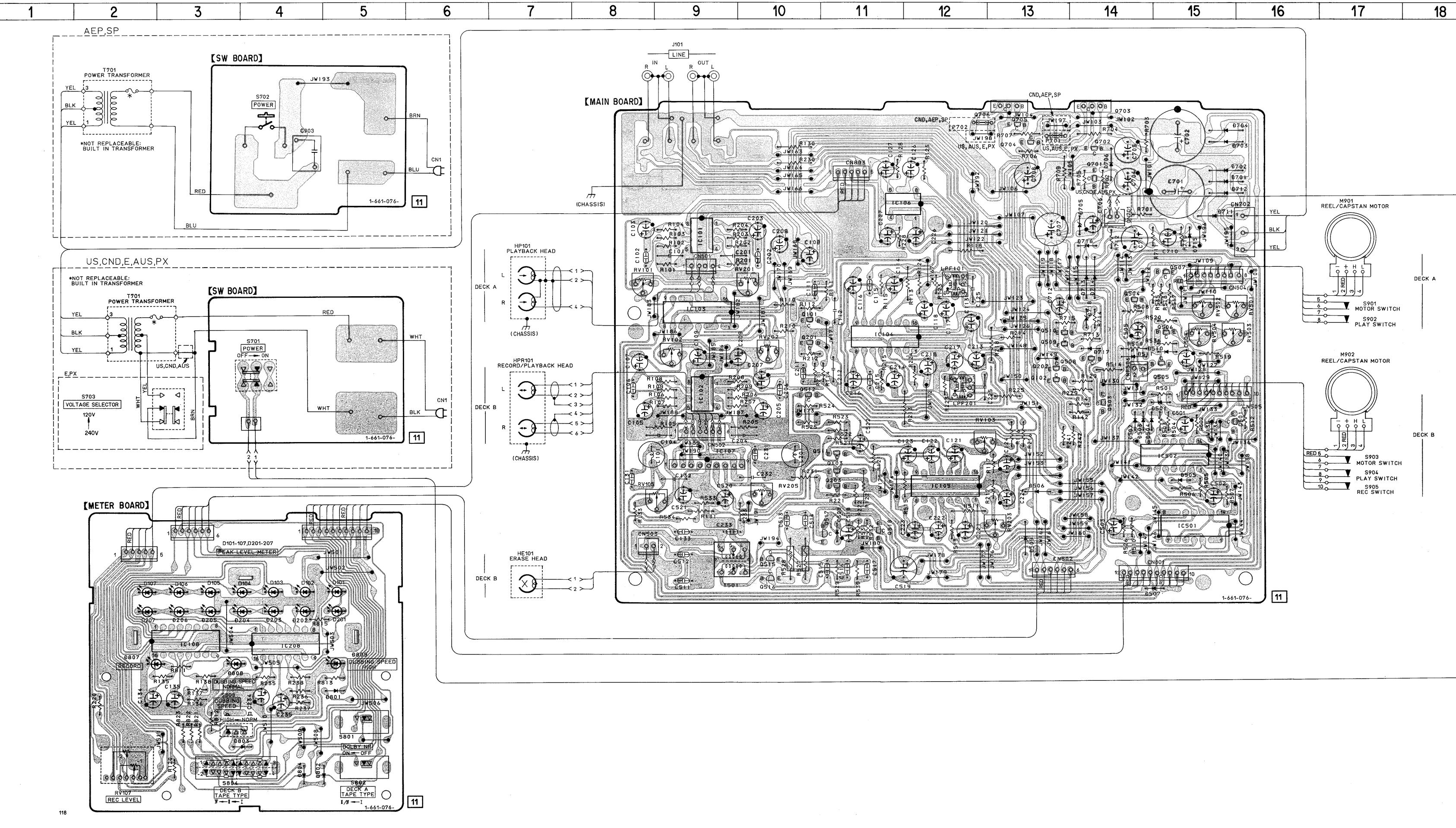
4-1. PRINTED WIRING BOARDS

● SEMICONDUCTOR LOCATION

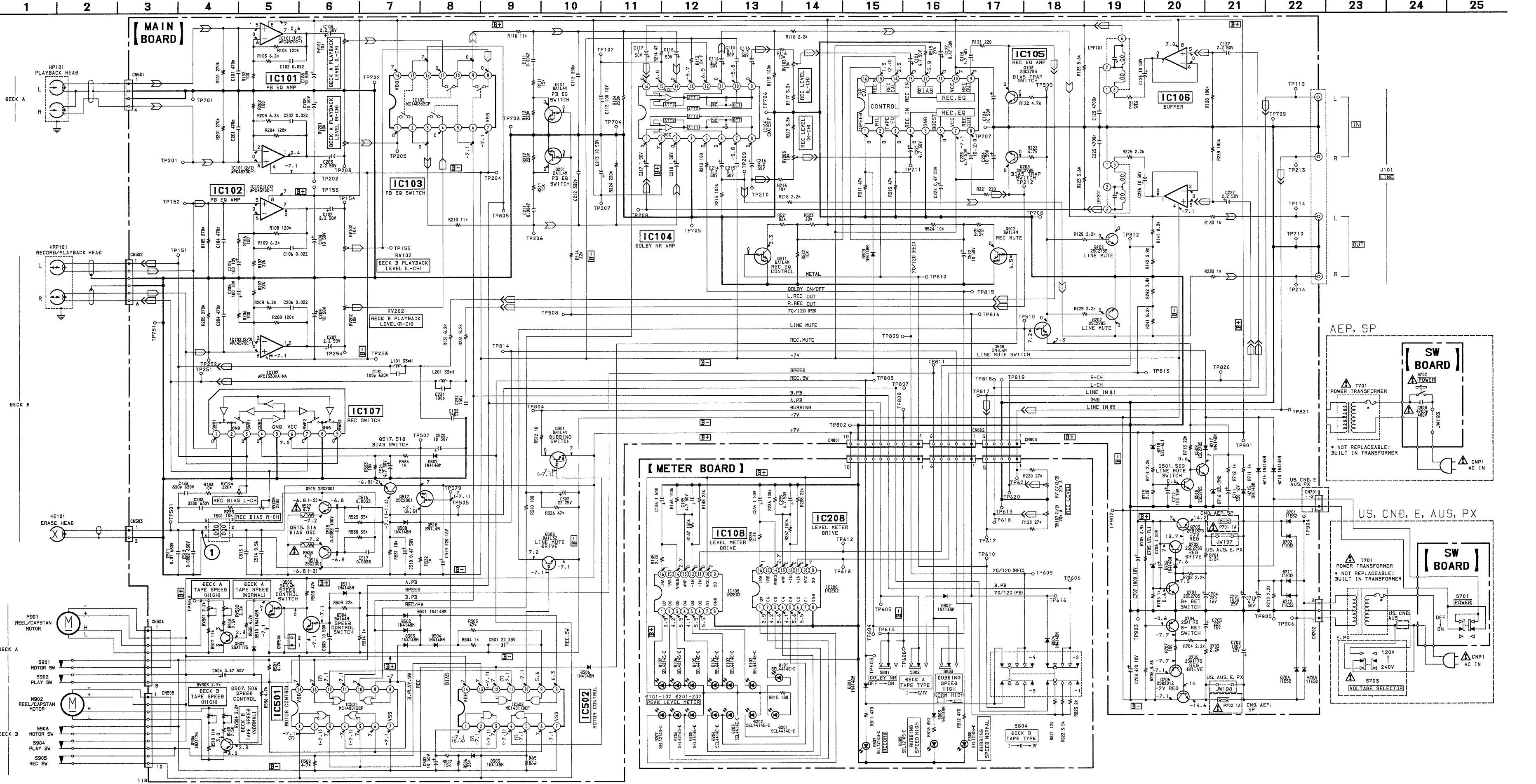
Ref. No.	Location	Ref. No.	Location
D101	H - 5	D808	H - 3
D102	H - 4	D809	H - 5
D103	H - 4		
D104	H - 4	IC101	C - 9
D105	H - 3	IC102	E - 9
D106	H - 3	IC103	D - 9
D107	H - 2	IC104	D - 11
D201	H - 5	IC105	F - 12
D202	H - 4		
D203	H - 4	IC106	C - 12
D204	H - 4	IC107	F - 9
D205	H - 3	IC108	H - 3
D206	H - 3	IC208	H - 4
D207	H - 2	IC501	G - 15
D501	E - 15	IC502	F - 15
D502	E - 14		
D503	E - 14	Q101	D - 10
D504	E - 15	Q102	E - 13
D505	F - 15	Q103	F - 11
D506	F - 13	Q201	D - 10
D507	G - 15	Q202	E - 13
D508	G - 11		
D509	G - 13	Q203	F - 11
D510	E - 15	Q501	E - 16
D511	E - 14	Q503	E - 14
D701	B - 15	Q504	D - 14
D702	B - 15	Q505	E - 15
D703	B - 15		
D704	B - 15	Q506	D - 15
D705	C - 14	Q507	D - 15
D706	B - 14	Q508	E - 14
D711	C - 15	Q509	D - 13
D712	C - 15	Q510	D - 13
D713	D - 14	Q511	F - 11
D714	D - 14	Q512	E - 10
D715	C - 15	Q515	G - 10
D716	C - 14	Q516	G - 10
D717	E - 14	Q517	G - 11
D718	D - 14		
D801	I - 5	Q518	G - 11
D802	J - 5	Q701	B - 14
D803	I - 4	Q702	B - 14
D804	J - 4	Q703	B - 14
D807	H - 2	Q704	B - 13
D802	J - 5		
D803	I - 4	Q705	B - 13
D804	J - 4	Q706	B - 13

Note:

- : parts extracted from the component side.
- △ : internal component.
- : Pattern from the side which enables seeing.
- Abbreviations
 - CND : Canadian
 - SP : Singapore
 - AUS : Australian

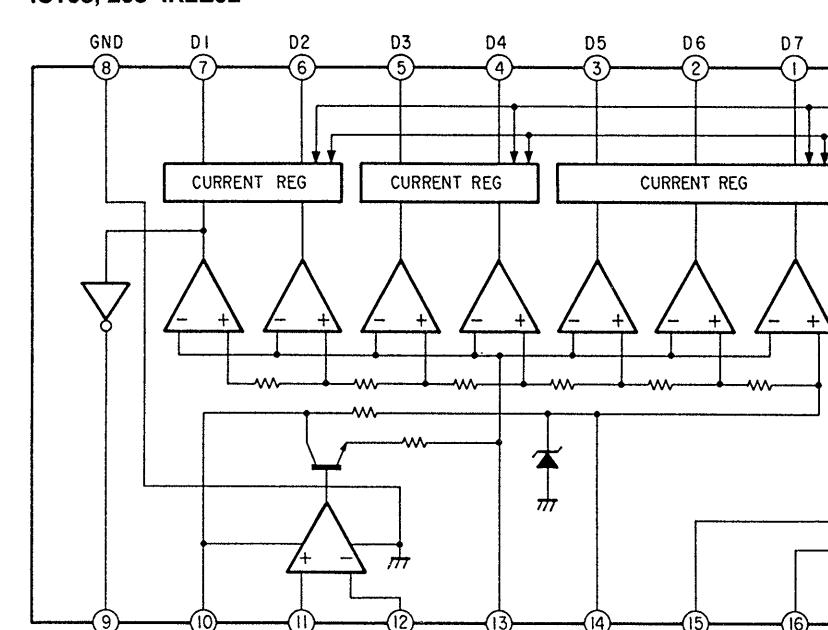


4-2. SCHEMATIC DIAGRAM



• IC BLOCK DIAGRAM

IC108, 208 IR2E02



Note :

- All capacitors are in μ F unless otherwise noted. pF: $\mu\mu$ F 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- $\text{W} \text{W}$: fusible resistor.
- : panel designation.

Note :

- The components identified by mark Δ or dotted line with mark Δ are critical for safety.

Replace only with part number specified.

SW BOARD

* NOT REPLACEABLE: BUILT IN TRANSFORMER

Note :

- Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

• B+ : B+ Line

• B- : B- Line

: adjustment for repair.

Voltage and waveforms are dc with respect to ground under no-signal conditions.

no mark: PLAY

() : REC

Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

Waveforms are taken with an oscilloscope.

Voltage variations may be noted due to normal production tolerances.

Circled numbers refer to waveforms.

Signal path:

— PB (DECK A)

— PB (DECK B)

— REC (DECK B)

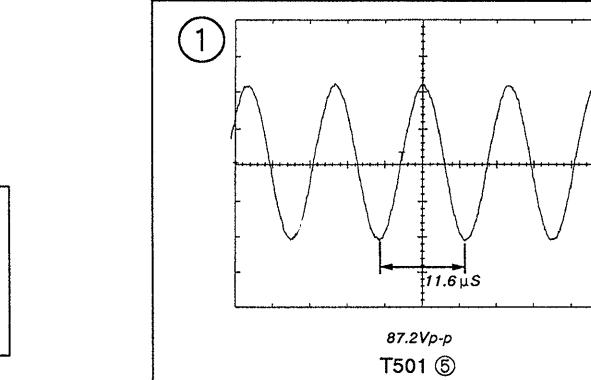
Abbreviations

CND : Canadian

SP : Singapore

AUS : Australian

• WAVEFORM



SECTION 5

EXPLODED VIEWS

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

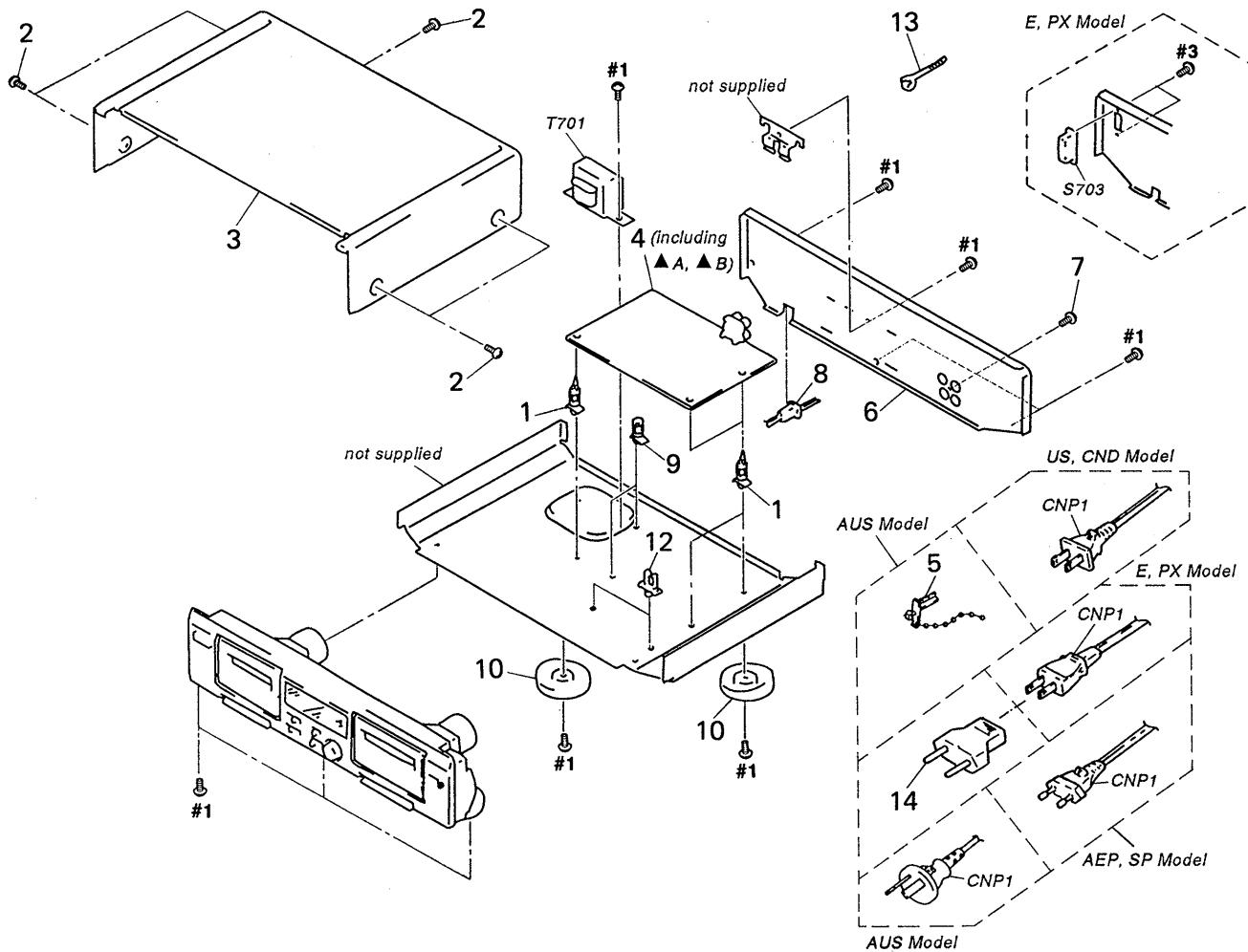
● Abbreviation

CND : Canadian SP : Singapore
AUS : Australian

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

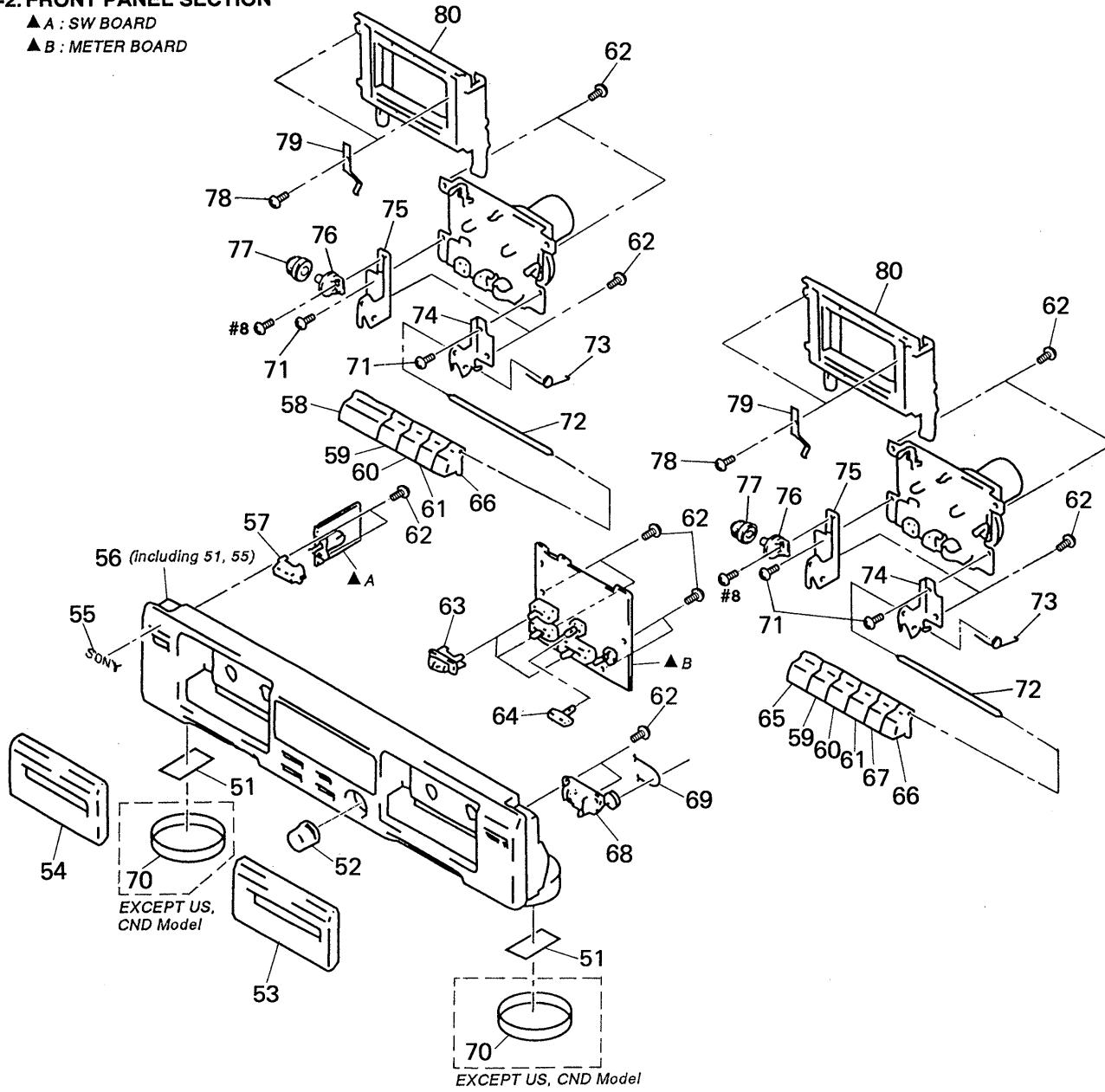
5-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	3-346-265-11	HOLDER, PC BOARD		* 9	3-669-610-00	SPACER	
2	3-363-099-01	SCREW (CASE 3 TP2)		10	4-977-591-01	FOOT (F50150S)(EXCEPT US,CND)	
* 3	3-935-634-01	CASE		10	4-977-591-11	FOOT (F50150S)(US,CND)	
* 4	A-2007-564-A	MAIN BOARD, COMPLETE (US,AUS)		12	2-122-805-01	CLAMP, CORD	
* 4	A-2007-589-A	MAIN BOARD, COMPLETE (AEP,SP,E,PX)		* 13	3-847-356-02	CLAMP	
* 4	A-2007-594-A	MAIN BOARD, COMPLETE (CND)		△ 14	1-569-007-11	ADAPTOR, CONVERSION 2P (E)	
5	4-956-370-12	BAND, PLUG FIXED (AUS)		△ CNP1	1-558-945-21	CORD, POWER (POLAR,SPT-1)(US,CND)	
* 6	3-935-621-01	PANEL, BACK (US)		△ CNP1	1-777-107-11	CORD, POWER (AEP,SP)	
* 6	3-935-621-11	PANEL, BACK (CND)		△ CNP1	1-777-217-11	CORD, POWER (E,PX)	
* 6	3-935-621-21	PANEL, BACK (AEP)		△ CNP1	1-777-218-11	CORD, POWER (AUS)	
* 6	3-935-621-31	PANEL, BACK (E,PX)		△ S703	1-692-155-11	SELECTOR, POWER VOLTAGE (E,PX)	
* 6	3-935-621-41	PANEL, BACK (AUS)		△ T701	1-429-716-11	TRANSFORMER, POWER (US,CND)	
* 6	3-935-621-51	PANEL, BACK (SP)		△ T701	1-429-717-11	TRANSFORMER, POWER (AEP,SP)	
7	3-704-515-01	SCREW (BV/RING)		△ T701	1-429-718-11	TRANSFORMER, POWER (E,PX)	
* 8	3-703-244-00	BUSHING (2104), CORD (AEP,SP,AUS)		△ T701	1-429-827-11	TRANSFORMER, POWER (AUS)	
8	3-703-571-11	BUSHING (S) (4516), CORD (US,CND,E,PX)					

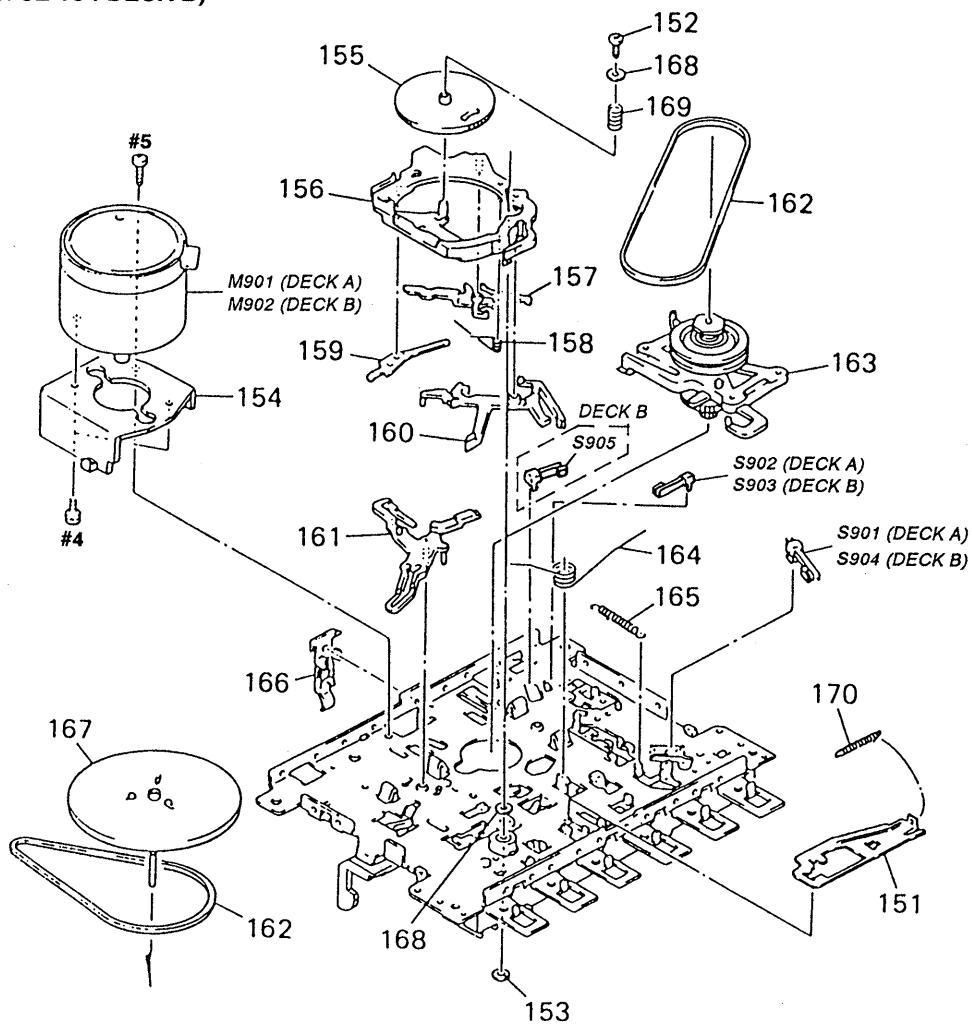
5-2. FRONT PANEL SECTION

▲ A : SW BOARD
 ▲ B : METER BOARD



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	4-978-398-21	CUSHION		66	3-935-629-01	BUTTON (PAUSE)	
52	3-935-623-01	KNOB (REC)		67	3-935-631-31	BUTTON (MD)	
53	A-2004-584-A	PANEL ASSY, FRONT(US,CND)		68	1-251-440-11	COUNTER, TAPE	
53	A-2004-597-A	PANEL ASSY, FRONT (EXCEPT US,CND)		69	3-315-405-00	BELT	
54	A-2004-588-A	LID ASSY (R), CASSETTE		70	3-936-864-01	RING (L), ORNAMENTAL(EXCEPT US,CND)	
55	4-963-404-21	EMBLEM (5-A), SONY		71	3-918-741-01	SCREW	
56	A-2004-587-A	LID ASSY (L), CASSETTE		* 72	3-931-794-01	BUTTON, SHAFT	
57	3-931-429-11	BUTTON (POWER)		73	3-931-805-01	SPRING	
58	3-935-628-01	BUTTON (PLAY)		* 74	3-931-792-01	BUTTON (R), HOLDER	
59	3-935-631-01	BUTTON (MD)		* 75	3-931-793-01	BUTTON (L), HOLDER	
60	3-935-631-11	BUTTON (MD)		76	3-931-806-01	GEAR, HOLDER	
61	3-935-631-21	BUTTON (MD)		77	3-931-807-01	DAMPER, GEAR	
62	4-951-620-01	SCREW (2.6X8), +BVTP		78	3-931-790-01	SCREW	
63	3-935-625-01	KNOB (SL)		* 79	3-931-804-01	PLATE, KEEP	
64	3-935-624-01	BUTTON (DB)		80	3-931-803-01	CASE, CASSETTE	
65	3-935-630-01	BUTTON (REC)		#8	7-685-782-01	SCREW +PTT 2X5 (S)	

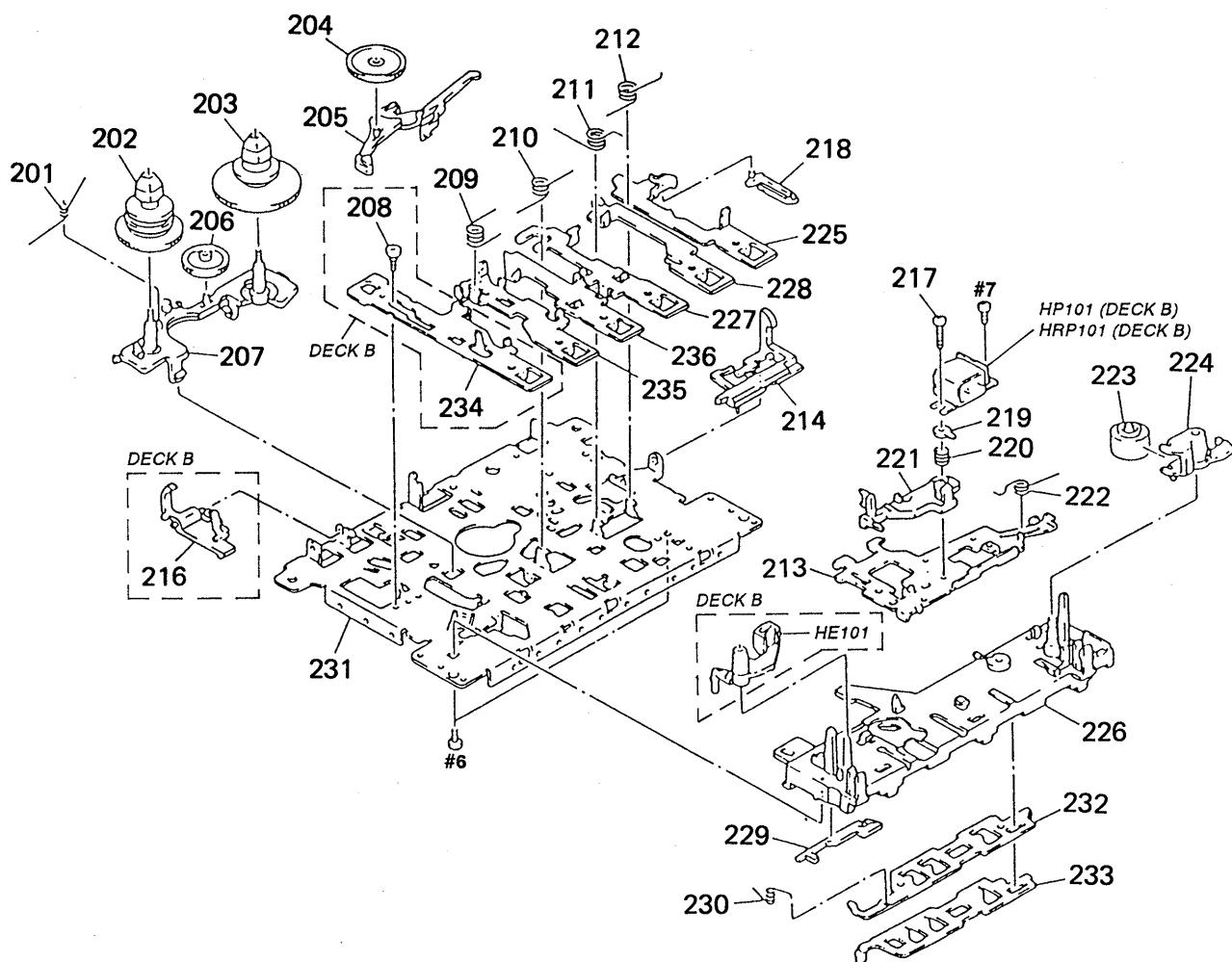
5-3. MECHANISM DECK SECTION 1 (TCM-YS47CZ-19 : DECK A) (TCM-YS47CZ-18 : DECK B)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-379-844-01	PLATE, STOP, FR		165	3-362-971-01	SPRING	
152	3-366-352-01	SCREW		166	3-911-189-01	CASSETTE SPRING	
153	3-362-980-01	WASHER		167	3-387-698-01	FW ASSY	
* 154	3-362-988-01	HOLDER, MOTOR		168	3-369-961-01	WASHER	
155	X-3363-315-1	GEAR, CAM		169	3-369-962-01	SPRING, COMPRESSION	
156	3-362-973-01	AS (BASE)		170	3-379-843-01	SPRING	
157	3-362-976-01	LEVER, CONTROL		M901	1-698-845-11	REEL/CAPSTAN MOTOR (DECK A)	
158	3-362-977-01	SPRING		M902	1-698-845-11	REEL/CAPSTAN MOTOR (DECK B)	
159	3-362-978-01	SPRING, PLATE		S901	1-692-434-11	LEAF SWITCH (MOTOR) (DECK A)	
160	3-362-975-01	LEVER, SENSOR		S902	1-692-434-11	LEAF SWITCH (PLAY) (DECK A)	
161	3-387-697-01	SENSOR		S903	1-692-434-11	LEAF SWITCH (MOTOR) (DECK B)	
162	3-362-989-01	BELT		S904	1-692-434-11	LEAF SWITCH (PLAY) (DECK B)	
163	3-362-969-01	IDLER ASSY, PF		S905	1-692-434-11	LEAF SWITCH (REC) (DECK B)	
164	3-362-970-01	SPRING					

5-4. MECHANISM DECK SECTION 2

(TCM-YS47CZ-19 : DECK A)
(TCM-YS47CZ-18 : DECK B)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-917-805-01	SPRING		221	3-362-986-01	HOLDER, HEAD	
202	X-3363-611-1	REEL, S		222	3-362-983-01	SPRING	
203	3-362-962-01	REEL ASSY, T		223	3-362-982-01	PINCH ROLLER	
204	3-362-960-01	PULLEY, IDLER		224	3-362-981-01	PINCH ARM	
205	3-362-959-01	ARM, IDLER		* 225	3-362-952-01	LEVER, PAUSE	
206	3-362-965-01	IDLER, FF		226	3-362-942-01	FRAME ASSY	
207	3-362-961-01	SPINDLE (BASE)		* 227	3-362-950-01	LEVER, FF	
208	3-362-958-01	SCREW (DECK B)		* 228	3-362-951-01	LEVER, SE	
209	3-362-954-01	SPRING		229	3-362-944-01	STOPPER, REC	
210	3-362-955-01	SPRING		230	3-362-945-01	SPRING	
211	3-362-956-01	SPRING		* 231	3-362-941-01	CHASSIS	
212	3-362-957-01	SPRING		* 232	3-362-943-01	PLATE, FUNCTION	
* 213	3-362-984-01	HEAD (BASE)		* 233	3-362-946-01	LEVER, SW	
214	3-362-968-01	LEVER, EJECT		* 234	3-362-947-01	LEVER, REC (DECK B)	
216	3-362-966-01	INTER LOCK (DECK B)		* 235	3-362-948-01	LEVER, PLAY	
217	3-363-229-01	SCREW		* 236	3-362-949-01	LEVER, REW	
218	3-362-953-01	ARM, PAUSE		HE101	1-543-673-11	ERASE HEAD (DECK B)	
219	3-363-230-01	LUG		HP101	1-543-672-11	PLAYBACK HEAD (DECK A)	
220	3-362-985-01	SPRING		HRP101	1-543-672-11	PLAYBACK/RECORD HEAD (DECK B)	

SECTION 6
ELECTRICAL PARTS LIST

MAIN **SW** **METER**

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● **SEMICONDUCTORS**

In each case, u : μ , for example :
 $uA....$: $\mu A....$, $uPA....$: $\mu PA....$
 $uPB....$: $\mu PB....$, $uPC....$: $\mu PC....$
 $uPD....$: $\mu PD....$

● **CAPACITORS**

uF : μF

● **COILS**

uH : μH

● **Abbreviation**

CND : Canadian
AUS : Australian

SP : Singapore

The components identified by mark Δ or dotted line with mark Δ are critical for safety.

Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-564-A	MAIN BOARD, COMPLETE (US,AUS)		C133	1-136-439-11	FILM	330PF 5% 630V
*	A-2007-589-A	MAIN BOARD, COMPLETE (AEP,E,SP,PX)		C134	1-124-903-11	ELECT	1uF 20% 50V
*	A-2007-594-A	MAIN BOARD, COMPLETE (CND)	*****	C135	1-126-963-11	ELECT	4.7uF 20% 50V
		SW BOARD	*****	C201	1-162-290-31	CERAMIC	470PF 10% 50V
		METER BOARD	*****	C202	1-136-157-00	FILM	0.022uF 5% 50V
*	1-535-688-11	TERMINAL		C203	1-126-961-11	ELECT	2.2uF 20% 50V
		< CAPACITOR >		C204	1-162-290-31	CERAMIC	470PF 10% 50V
C101	1-162-290-31	CERAMIC	470PF 10% 50V	C205	1-124-443-00	ELECT	100uF 20% 10V
C102	1-136-157-00	FILM	0.022uF 5% 50V	C206	1-136-157-00	FILM	0.022uF 5% 50V
C103	1-126-961-11	ELECT	2.2uF 20% 50V	C207	1-126-961-11	ELECT	2.2uF 20% 50V
C104	1-162-290-31	CERAMIC	470PF 10% 50V	C208	1-124-907-11	ELECT	10uF 20% 50V
C105	1-124-443-00	ELECT	100uF 20% 10V	C209	1-124-907-11	ELECT	10uF 20% 50V
C106	1-136-157-00	FILM	0.022uF 5% 50V	C211	1-130-479-00	MYLAR	0.0047uF 5% 50V
C107	1-126-961-11	ELECT	2.2uF 20% 50V	C212	1-162-289-31	CERAMIC	390PF 10% 50V
C108	1-124-907-11	ELECT	10uF 20% 50V	C213	1-124-907-11	ELECT	10uF 20% 50V
C109	1-124-907-11	ELECT	10uF 20% 50V	C214	1-126-961-11	ELECT	2.2uF 20% 50V
C111	1-130-479-00	MYLAR	0.0047uF 5% 50V	C215	1-136-165-00	FILM	0.1uF 5% 50V
C112	1-162-289-31	CERAMIC	390PF 10% 50V	C216	1-126-961-11	ELECT	2.2uF 20% 50V
C113	1-124-443-00	ELECT	100uF 20% 10V	C217	1-124-903-11	ELECT	1uF 20% 50V
C114	1-126-961-11	ELECT	2.2uF 20% 50V	C218	1-124-903-11	ELECT	1uF 20% 50V
C115	1-136-165-00	FILM	0.1uF 5% 50V	C221	1-126-963-11	ELECT	4.7uF 20% 50V
C116	1-126-961-11	ELECT	2.2uF 20% 50V	C222	1-124-902-00	ELECT	0.47uF 20% 50V
C117	1-124-903-11	ELECT	1uF 20% 50V	C223	1-126-963-11	ELECT	4.7uF 20% 50V
C118	1-124-903-11	ELECT	1uF 20% 50V	C224	1-124-907-11	ELECT	10uF 20% 50V
C121	1-126-963-11	ELECT	4.7uF 20% 50V	C225	1-162-600-11	CERAMIC	0.0047uF 30% 16V
C122	1-124-902-00	ELECT	0.47uF 20% 50V	C226	1-124-907-11	ELECT	10uF 20% 50V
C123	1-126-963-11	ELECT	4.7uF 20% 50V	C227	1-126-961-11	ELECT	2.2uF 20% 50V
C124	1-124-907-11	ELECT	10uF 20% 50V	C231	1-136-433-11	FILM	100PF 5% 630V
C125	1-162-600-11	CERAMIC	0.0047uF 30% 16V	C232	1-162-284-31	CERAMIC	150PF 10% 50V
C126	1-124-907-11	ELECT	10uF 20% 50V	C233	1-136-439-11	FILM	330PF 5% 630V
C127	1-126-961-11	ELECT	2.2uF 20% 50V	C234	1-124-903-11	ELECT	1uF 20% 50V
C131	1-136-433-11	FILM	100PF 5% 630V	C235	1-126-963-11	ELECT	4.7uF 20% 50V
C132	1-162-284-31	CERAMIC	150PF 10% 50V	C501	1-126-233-11	ELECT	22uF 20% 50V
				C502	1-124-907-11	ELECT	10uF 20% 50V
				C503	1-126-233-11	ELECT	22uF 20% 50V
				C504	1-124-902-00	ELECT	0.47uF 20% 50V

MAIN	SW	METER
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C505	1-124-907-11	ELECT	10uF 20%	50V	D203	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)
C511	1-136-601-11	FILM	0.01uF 5%	630V	D204	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)
C512	1-136-562-11	FILM	0.0082uF 5%	630V	D205	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)
C513	1-136-177-00	FILM	1uF 5%	50V	D206	8-719-304-32	LED SEL4214S (PEAK LEVEL METER)
C514	1-136-174-00	FILM	0.56uF 5%	50V	D207	8-719-304-32	LED SEL4214S (PEAK LEVEL METER)
C515	1-106-365-00	MYLAR	0.0082uF 5%	100V	D501	8-719-987-63	DIODE 1N4148M
C516	1-106-355-12	MYLAR	3300PF 5%	200V	D502	8-719-987-63	DIODE 1N4148M
C517	1-106-355-12	MYLAR	3300PF 5%	200V	D503	8-719-987-63	DIODE 1N4148M
C518	1-124-902-00	ELECT	0.47uF 20%	50V	D504	8-719-987-63	DIODE 1N4148M
C519	1-124-120-11	ELECT	220uF 20%	25V	D505	8-719-987-63	DIODE 1N4148M
C520	1-124-907-11	ELECT	10uF 20%	50V	D506	8-719-987-63	DIODE 1N4148M
C521	1-126-963-11	ELECT	4.7uF 20%	50V	D507	8-719-987-63	DIODE 1N4148M
C522	1-124-907-11	ELECT	10uF 20%	50V	D508	8-719-987-63	DIODE 1N4148M
C701	1-124-557-11	ELECT	1000uF 20%	25V	D509	8-719-987-63	DIODE 1N4148M
C702	1-124-557-11	ELECT	1000uF 20%	25V	D510	8-719-987-63	DIODE 1N4148M
C704	1-124-120-11	ELECT	220uF 20%	25V	D511	8-719-987-63	DIODE 1N4148M
C705	1-124-120-11	ELECT	220uF 20%	25V	D701	8-719-024-99	DIODE 11ES2-NTA2B
C706	1-124-903-11	ELECT	1uF 20%	50V	D702	8-719-024-99	DIODE 11ES2-NTA2B
C707	1-124-473-11	ELECT	1000uF 20%	10V	D703	8-719-024-99	DIODE 11ES2-NTA2B
C708	1-124-472-11	ELECT	470uF 20%	10V	D704	8-719-024-99	DIODE 11ES2-NTA2B
C710	1-126-963-11	ELECT	4.7uF 20%	50V	D705	8-719-000-75	DIODE UZL-7L1
C711	1-124-119-00	ELECT	330uF 20%	16V	D706	8-719-987-63	DIODE 1N4148M
C712	1-124-443-00	ELECT	100uF 20%	10V	D711	8-719-024-99	DIODE 11ES2-NTA2B
△C903	1-165-170-11	CERAMIC	0.0047uF 20%	400V (AEP,SP)	D712	8-719-024-99	DIODE 11ES2-NTA2B
< CONNECTOR >							
CN501	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			D713	8-719-987-63	DIODE 1N4148M
* CN502	1-691-577-11	PIN, CONNECTOR (PC BOARD) 6P			D714	8-719-987-63	DIODE 1N4148M
* CN503	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			D715	8-719-987-63	DIODE 1N4148M
* CN504	1-691-579-11	PIN, CONNECTOR (PC BOARD) 8P			D716	8-719-933-47	DIODE HZS7B2L
* CN505	1-691-581-11	PIN, CONNECTOR (PC BOARD) 10P			D717	8-719-987-63	DIODE 1N4148M
* CN506	1-560-060-00	PIN, CONNECTOR 2P			D718	8-719-933-33	DIODE HZS6A1L
* CN701	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			D801	8-719-987-63	DIODE 1N4148M
(EXCEPT AEP,SP)							
* CN702	1-535-116-00	TERMINAL(US,CND,AUS)			D802	8-719-987-63	DIODE 1N4148M
* CN702	1-691-574-11	PIN, CONNECTOR (PC BOARD) 3P			D803	8-719-987-63	DIODE 1N4148M
(AEP,E,SP,PX)							
* CN801	1-691-581-11	PIN, CONNECTOR (PC BOARD) 10P			D804	8-719-987-63	DIODE 1N4148M
* CN802	1-691-577-11	PIN, CONNECTOR (PC BOARD) 6P			D807	8-719-302-46	LED SEL1210S-C-TP3(RECORD)
CN803	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			D808	8-719-302-46	LED SEL1210S-C-TP3(DUBBING SPEED HIG)
< DIODE >							
D101	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			D809	8-719-302-46	LED SEL1210S-C-TP3(DUBBING SPEED NORMAL)
D102	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			< IC >		
D103	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC101	8-759-111-44	IC uPC4570C-1
D103	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC102	8-759-111-44	IC uPC4570C-1
D104	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC103	8-759-000-49	IC MC14066BCP
D105	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC104	8-752-056-08	IC CXA1551P
D106	8-719-304-32	LED SEL4214S (PEAK LEVEL METER)			IC105	8-752-064-96	IC CXA1579P
D107	8-719-304-32	LED SEL4214S (PEAK LEVEL METER)			IC106	8-759-634-51	IC M5218AP
D201	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC107	8-759-079-42	IC uPC1330HA-NA
D202	8-719-304-37	LED SEL4414E-C(PEAK LEVEL METER)			IC108	8-759-912-79	IC IR2E02
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.							
Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.							

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
		< JACK >			R106	1-247-807-31	CARBON	100	5% 1/4W
J101	1-770-614-11	JACK, PIN 4P (LINE IN,OUT)			R107	1-249-433-11	CARBON	22K	5% 1/4W
		< COIL >			R108	1-247-881-00	CARBON	120K	5% 1/4W
L101	1-410-781-11	INDUCTOR	33mH		R109	1-247-850-11	CARBON	6.2K	5% 1/4W
L201	1-410-781-11	INDUCTOR	33mH		R110	1-247-856-00	CARBON	11K	5% 1/4W
		< FILTER >			R111	1-249-431-11	CARBON	15K	5% 1/4W
LPF101	1-233-380-11	FILTER, LOW PASS			R112	1-247-887-00	CARBON	220K	5% 1/4W
LPF201	1-233-380-11	FILTER, LOW PASS			R113	1-215-451-00	METAL	18K	1% 1/4W
		< IC LINK >			R114	1-249-433-11	CARBON	22K	5% 1/4W
△P701	1-532-637-00	LINK, IC(1A)(CND,AEP,SP)			R115	1-249-441-11	CARBON	100K	5% 1/4W
△P702	1-532-637-00	LINK, IC(1A)(CND,AEP,SP)			R116	1-249-429-11	CARBON	10K	5% 1/4W
		< TRANSISTOR >			R117	1-249-423-11	CARBON	3.3K	5% 1/4W
Q101	8-729-900-89	TRANSISTOR	DTC144ES		R118	1-249-421-11	CARBON	2.2K	5% 1/4W
Q102	8-729-119-78	TRANSISTOR	2SC403SP-51		R119	1-249-434-11	CARBON	27K	5% 1/4W
Q103	8-729-119-78	TRANSISTOR	2SC403SP-51		R120	1-249-409-11	CARBON	220	5% 1/4W
Q201	8-729-900-89	TRANSISTOR	DTC144ES		R121	1-249-425-11	CARBON	4.7K	5% 1/4W
Q202	8-729-119-78	TRANSISTOR	2SC403SP-51		R122	1-249-426-11	CARBON	5.6K	5% 1/4W
Q203	8-729-119-78	TRANSISTOR	2SC403SP-51		R123	1-247-887-00	CARBON	220K	5% 1/4W
Q501	8-729-900-65	TRANSISTOR	DTA144ES		R124	1-249-421-11	CARBON	2.2K	5% 1/4W
Q503	8-729-900-74	TRANSISTOR	DTC143TS		R125	1-249-441-11	CARBON	100K	5% 1/4W
Q504	8-729-900-80	TRANSISTOR	DTC114ES		R126	1-249-421-11	CARBON	10K	5% 1/4W
Q505	8-729-900-89	TRANSISTOR	DTC144ES		R127	1-247-840-00	CARBON	8.2K	5% 1/4W
Q506	8-729-119-76	TRANSISTOR	2SA1175-HFE		R128	1-249-428-11	CARBON	2.4K	5% 1/4W
Q507	8-729-119-76	TRANSISTOR	2SA1175-HFE		R129	1-249-428-11	CARBON	100K	5% 1/4W
Q508	8-729-900-65	TRANSISTOR	DTA144ES		R130	1-247-883-00	CARBON	150K	5% 1/4W
Q509	8-729-119-78	TRANSISTOR	2SC403SP-51		R131	1-249-433-11	CARBON	22K	5% 1/4W
Q510	8-729-119-78	TRANSISTOR	2SC403SP-51		R132	1-249-428-11	CARBON	8.2K	5% 1/4W
Q511	8-729-900-89	TRANSISTOR	DTC144ES		R133	1-249-424-11	CARBON	10K	5% 1/4W
Q512	8-729-900-89	TRANSISTOR	DTC144ES		R134	1-247-840-00	CARBON	2.4K	5% 1/4W
Q515	8-729-142-46	TRANSISTOR	2SC2001-LK		R135	1-249-441-11	CARBON	100K	5% 1/4W
Q516	8-729-142-46	TRANSISTOR	2SC2001-LK		R136	1-247-889-00	CARBON	150K	5% 1/4W
Q517	8-729-142-46	TRANSISTOR	2SC2001-LK		R137	1-247-883-00	CARBON	22K	5% 1/4W
Q518	8-729-900-65	TRANSISTOR	DTA144ES		R138	1-249-433-11	CARBON	8.2K	5% 1/4W
Q701	8-729-119-78	TRANSISTOR	2SC403SP-51		R139	1-249-424-11	CARBON	10K	5% 1/4W
Q702	8-729-119-78	TRANSISTOR	2SC403SP-51		R140	1-247-889-00	CARBON	2.4K	5% 1/4W
Q703	8-729-141-83	TRANSISTOR	2SB1094-LK		R141	1-249-424-11	CARBON	100K	5% 1/4W
Q704	8-729-119-76	TRANSISTOR	2SA1175-HFE		R142	1-247-889-00	CARBON	3.9K	5% 1/4W
Q705	8-729-119-76	TRANSISTOR	2SA1175-HFE		R201	1-247-889-00	CARBON	270K	5% 1/4W
Q706	8-729-209-15	TRANSISTOR	2SD2012		R202	1-247-807-31	CARBON	100	5% 1/4W
		< RESISTOR >			R203	1-247-850-11	CARBON	6.2K	5% 1/4W
R101	1-247-889-00	CARBON	270K	5% 1/4W	R204	1-247-881-00	CARBON	120K	5% 1/4W
R102	1-247-807-31	CARBON	100	5% 1/4W	R205	1-247-889-00	CARBON	270K	5% 1/4W
R103	1-247-850-11	CARBON	6.2K	5% 1/4W	R206	1-247-807-31	CARBON	100	5% 1/4W
R104	1-247-881-00	CARBON	120K	5% 1/4W	R207	1-249-433-11	CARBON	22K	5% 1/4W
R105	1-247-889-00	CARBON	270K	5% 1/4W	R208	1-247-881-00	CARBON	120K	5% 1/4W
					R209	1-247-850-11	CARBON	6.2K	5% 1/4W
					R210	1-247-856-00	CARBON	11K	5% 1/4W
					R211	1-249-431-11	CARBON	15K	5% 1/4W
					R212	1-247-887-00	CARBON	220K	5% 1/4W
					R213	1-247-807-31	CARBON	100	5% 1/4W
					R214	1-249-401-11	CARBON	47	5% 1/4W
					R215	1-249-441-11	CARBON	100K	5% 1/4W
					R216	1-249-429-11	CARBON	10K	5% 1/4W
					R217	1-249-423-11	CARBON	3.3K	5% 1/4W
					R218	1-249-421-11	CARBON	2.2K	5% 1/4W
					R219	1-249-434-11	CARBON	27K	5% 1/4W
					R220	1-249-409-11	CARBON	220	5% 1/4W
					R221	1-249-425-11	CARBON	4.7K	5% 1/4W
					R222	1-249-425-11	CARBON	4.7K	5% 1/4W

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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MAIN SW METER

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark	
R223	1-249-426-11	CARBON	5.6K	5%	1/4W	R704	1-249-421-11	CARBON	2.2K	5%	1/4W	
R224	1-247-887-00	CARBON	220K	5%	1/4W	R705	1-249-417-11	CARBON	1K	5%	1/4W	
R225	1-249-421-11	CARBON	2.2K	5%	1/4W	R706	1-249-423-11	CARBON	3.3K	5%	1/4W	
R228	1-249-441-11	CARBON	100K	5%	1/4W	R707	1-247-807-31	CARBON	100	5%	1/4W	
R229	1-249-421-11	CARBÓN	2.2K	5%	1/4W	R709	1-249-424-11	CARBON	3.9K	5%	1/4W	
R230	1-249-417-11	CARBON	1K	5%	1/4W	R710	1-249-421-11	CARBON	2.2K	5%	1/4W	
R231	1-249-428-11	CARBON	8.2K	5%	1/4W	R711	1-249-417-11	CARBON	1K	5%	1/4W	
R233	1-249-429-11	CARBON	10K	5%	1/4W	R712	1-249-417-11	CARBON	1K	5%	1/4W	
R235	1-247-840-00	CARBON	2.4K	5%	1/4W	R713	1-249-433-11	CARBON	22K	5%	1/4W	
R236	1-249-441-11	CARBON	100K	5%	1/4W	R714	1-249-421-11	CARBON	2.2K	5%	1/4W	
R237	1-247-883-00	CARBON	150K	5%	1/4W	R715	1-249-421-11	CARBON	2.2K	5%	1/4W	
R238	1-249-433-11	CARBON	22K	5%	1/4W	R811	1-249-413-11	CARBON	470	5%	1/4W	
R241	1-249-428-11	CARBON	8.2K	5%	1/4W	R812	1-249-412-11	CARBON	390	5%	1/4W	
R242	1-249-424-11	CARBON	3.9K	5%	1/4W	R813	1-249-413-11	CARBON	470	5%	1/4W	
R501	1-249-425-11	CARBON	4.7K	5%	1/4W	R815	1-249-408-11	CARBON	180	5%	1/4W	
R502	1-249-425-11	CARBON	4.7K	5%	1/4W	R821	1-249-430-11	CARBON	12K	5%	1/4W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	R822	1-249-424-11	CARBON	3.9K	5%	1/4W	
R504	1-249-417-11	CARBON	1K	5%	1/4W	R823	1-247-838-00	CARBON	2K	5%	1/4W	
R505	1-249-425-11	CARBON	4.7K	5%	1/4W							
R506	1-249-435-11	CARBON	33K	5%	1/4W						< VARIABLE RESISTOR >	
R507	1-249-431-11	CARBON	15K	5%	1/4W	RV101	1-241-630-11	RES, ADJ, CARBON 10K				
R508	1-249-437-11	CARBON	47K	5%	1/4W						(PLAYBACK LEVEL(L-CH))(DECK A)	
R509	1-249-433-11	CARBON	22K	5%	1/4W	RV102	1-241-630-11	RES, ADJ, CARBON 10K				(PLAYBACK LEVEL(L-CH))(DECK B)
R510	1-247-807-31	CARBON	100	5%	1/4W	RV103	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL(L-CH))				
R511	1-249-437-11	CARBON	47K	5%	1/4W	RV105	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS(L-CH))				
R512	1-249-393-11	CARBON	10	5%	1/4W	RV107	1-223-850-11	RES, VAR, CARBON 20K/20K(REC LEVEL)				
R513	1-249-437-11	CARBON	47K	5%	1/4W	RV201	1-241-630-11	RES, ADJ, CARBON 10K				(PLAYBACK LEVEL(R-CH))(DECK A)
R514	1-249-417-11	CARBON	1K	5%	1/4W	RV202	1-241-630-11	RES, ADJ, CARBON 10K				
R515	1-215-455-00	METAL	27K	1%	1/4W	RV203	1-241-630-11	RES, ADJ, CARBON 10K (REC LEVEL(R-CH))				
R517	1-247-856-00	CARBON	11K	5%	1/4W	RV205	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS(R-CH))				
R518	1-247-852-11	CARBON	7.5K	5%	1/4W	RV501	1-241-762-11	RES, ADJ, CARBON 2.2K				(TAPE SPEED(HIGH))(DECK A)
R519	1-247-856-00	CARBON	11K	5%	1/4W	RV502	1-241-762-11	RES, ADJ, CARBON 2.2K				(TAPE SPEED(NORMAL))(DECK B)
R520	1-247-852-11	CARBON	7.5K	5%	1/4W	RV503	1-241-762-11	RES, ADJ, CARBON 2.2K				(TAPE SPEED(HIGH))(DECK B)
R521	1-249-440-11	CARBON	82K	5%	1/4W	RV504	1-241-762-11	RES, ADJ, CARBON 2.2K				(TAPE SPEED(NORMAL))(DECK B)
R522	1-249-429-11	CARBON	10K	5%	1/4W							
R523	1-247-862-11	CARBON	20K	5%	1/4W							
R524	1-249-429-11	CARBON	10K	5%	1/4W							
R525	1-249-421-11	CARBON	2.2K	5%	1/4W							
R526	1-249-437-11	CARBON	47K	5%	1/4W							
△R527	1-212-849-00	FUSIBLE	4.7	5%	1/4W F						< SWITCH >	
△R528	1-212-849-00	FUSIBLE	4.7	5%	1/4W F							
R529	1-249-435-11	CARBON	33K	5%	1/4W	S701	1-762-580-11	SWITCH, PUSH (1 KEY)(POWER)				
R530	1-249-435-11	CARBON	33K	5%	1/4W						(US,CND,E,AUS,PX)	
R531	1-249-429-11	CARBON	10K	5%	1/4W	△S702	1-762-581-11	SWITCH, AC POWER PUSH (1 KEY)(POWER)				(AEP,SP)
R532	1-249-417-11	CARBON	1K	5%	1/4W	△S703	1-692-155-11	SELECTOR POWER VOLTAGE				
R533	1-249-429-11	CARBON	10K	5%	1/4W						(VOLTAGE SELECTOR) (E,PX)	
R534	1-249-417-11	CARBON	1K	5%	1/4W	S801	1-762-251-11	SWITCH, SLIDE(DOLBY NR)				
R535	1-249-425-11	CARBON	4.7K	5%	1/4W	S802	1-762-251-11	SWITCH, SLIDE(DECK A TAPE TYPE)				
R536	1-249-425-11	CARBON	4.7K	5%	1/4W	S803	1-762-747-11	SWITCH, PUSH (DUBBING SPEED)				
R701	1-249-421-11	CARBON	2.2K	5%	1/4W	S804	1-762-748-11	SWITCH, SLIDE(DECK B TAPE TYPE)				
R702	1-249-421-11	CARBON	2.2K	5%	1/4W							
R703	1-249-421-11	CARBON	2.2K	5%	1/4W							

The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque **△** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< TRANSFORMER >											
T501	1-427-780-11	TRANSFORMER, BIAS OSCILLATION		***** HARDWARE LIST *****							

MISCELLANEOUS											

△ 14	1-569-007-11	ADAPTOR, CONVERSION 2P (E)		#1	7-682-548-04	SCREW +BVTT 3X8 (S)					
68	1-251-440-11	COUNTER, TAPE		#2	7-685-871-01	SCREW +BVTT 3X6 (S)					
△CNP1	1-558-945-21	CORD, POWER (POLAR.SPT-1)(US,CND)		#3	7-621-255-45	SCREW +P 2X6 (E)					
△CNP1	1-777-107-11	CORD, POWER (AEP,SP)		#4	7-628-254-05	SCREW +PS 2.6X5					
△CNP1	1-777-217-11	CORD, POWER (E,PX)		#5	7-685-861-01	SCREW +BVTT 2.6X5 (S)					
△CNP1	1-777-218-11	CORD, POWER (AUS)		#6	7-685-104-19	SCREW +P 2X6 TYPE2 NON SLIT					
HE101	1-543-673-11	ERASE HEAD (DECK B)		#7	7-621-255-25	SCREW +PTT 2X4 (S)					
HP101	1-543-672-11	PLAYBACK HEAD (DECK A)		#8	7-685-782-01	SCREW +PTT 2X5 (S)					
HRP101	1-543-672-11	PLAYBACK/RECORD HEAD (DECK B)									
M901	1-698-845-11	REEL/CAPSTAN MOTOR (DECK A)									
M902	1-698-845-11	REEL/CAPSTAN MOTOR (DECK B)									
△ S703	1-692-155-11	SELECTOR,POWER VOLTAGE (VOLTAGE SELECTOR) (E,PX)									
S901	1-692-434-11	LEAF SWITCH (MOTOR) (DECK A)									
S902	1-692-434-11	LEAF SWITCH (PLAY) (DECK A)									
S903	1-692-434-11	LEAF SWITCH (MOTOR) (DECK B)									
S904	1-692-434-11	LEAF SWITCH (PLAY) (DECK B)									
S905	1-692-434-11	LEAF SWITCH (REC) (DECK B)									
△ T701	1-429-716-11	TRANSFORMER POWER (US,CND)									
△ T701	1-429-717-11	TRANSFORMER POWER (AEP,SP)									
△ T701	1-429-718-11	TRANSFORMER POWER (E,PX)									
△ T701	1-429-827-11	TRANSFORMER POWER (AUS)									

ACCESSORIES & PACKING MATERIALS											

	1-558-271-11	CORD, CONNECTION									
	3-856-686-11	MANUAL, INSTRUCTION (US,CND,AUS,SP) (ENGLISH)									
	3-856-686-21	MANUAL, INSTRUCTION (CND) (FRENCH)									
	3-856-686-31	MANUAL, INSTRUCTION (AEP,E,PX) (ENGLISH,FRENCH,SPANISH,CHINESE)									
	3-856-686-41	MANUAL, INSTRUCTION (AEP,SP) (GERMAN,DUTCH,SWEDISH,ITALIAN)									
*	3-936-921-01	CUSHION									
*	3-936-940-01	INDIVIDUAL CARTON (AEP,SP)									
*	3-936-941-01	INDIVIDUAL CARTON (EXCEPT AEP,SP)									

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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TC-WE305

SONY®

SERVICE MANUAL

Ver 1.2 2003.12

US Model
Canadian Model
AEP Model
E Model
Australian Model
PX Model

SUPPLEMENT - 1

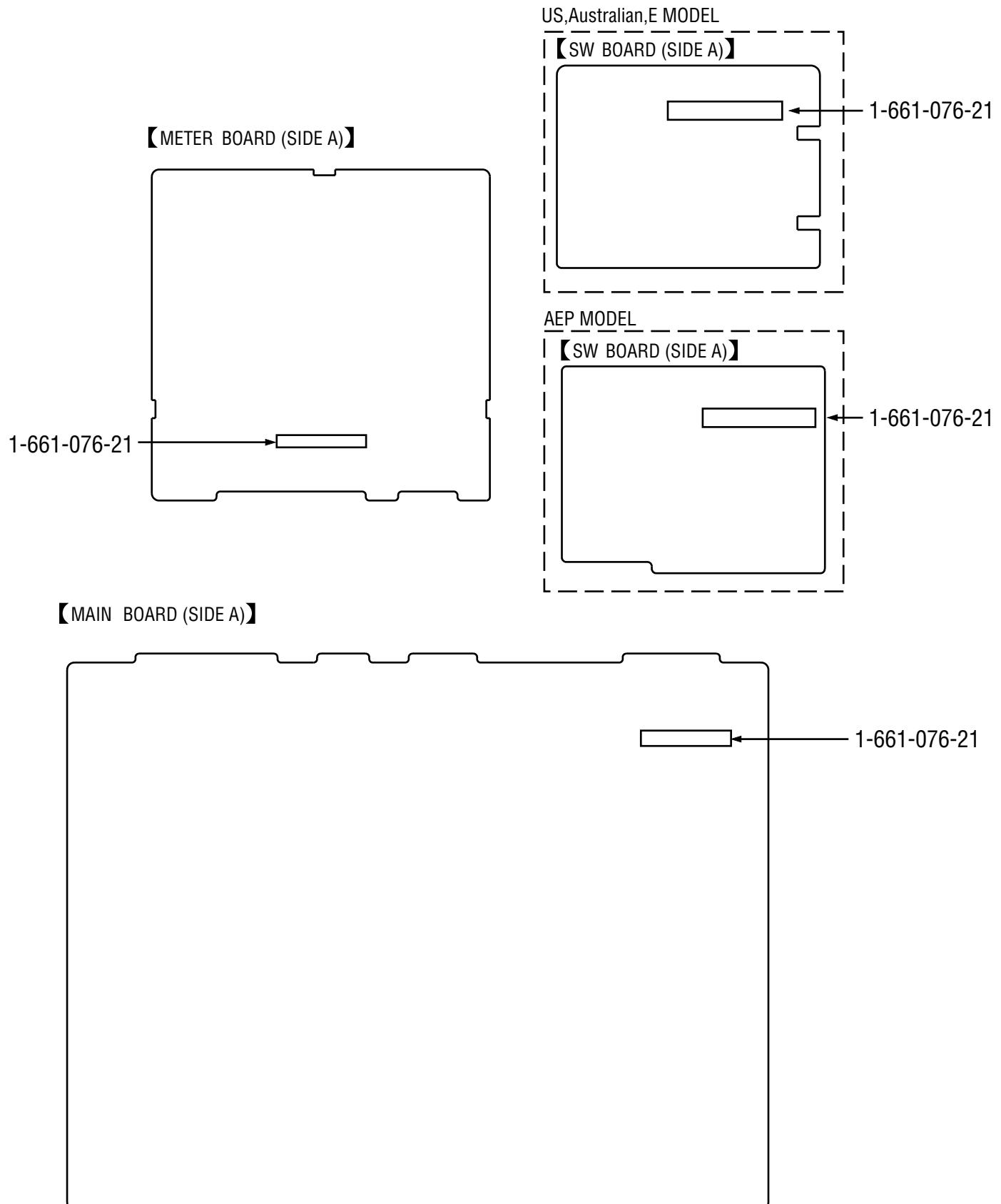
File this Supplement with the Service Manual.

**Subject : SUFFIX CHANGE OF THE MAIN, SW AND METER
BOARD**

(ECN-TCA00478)

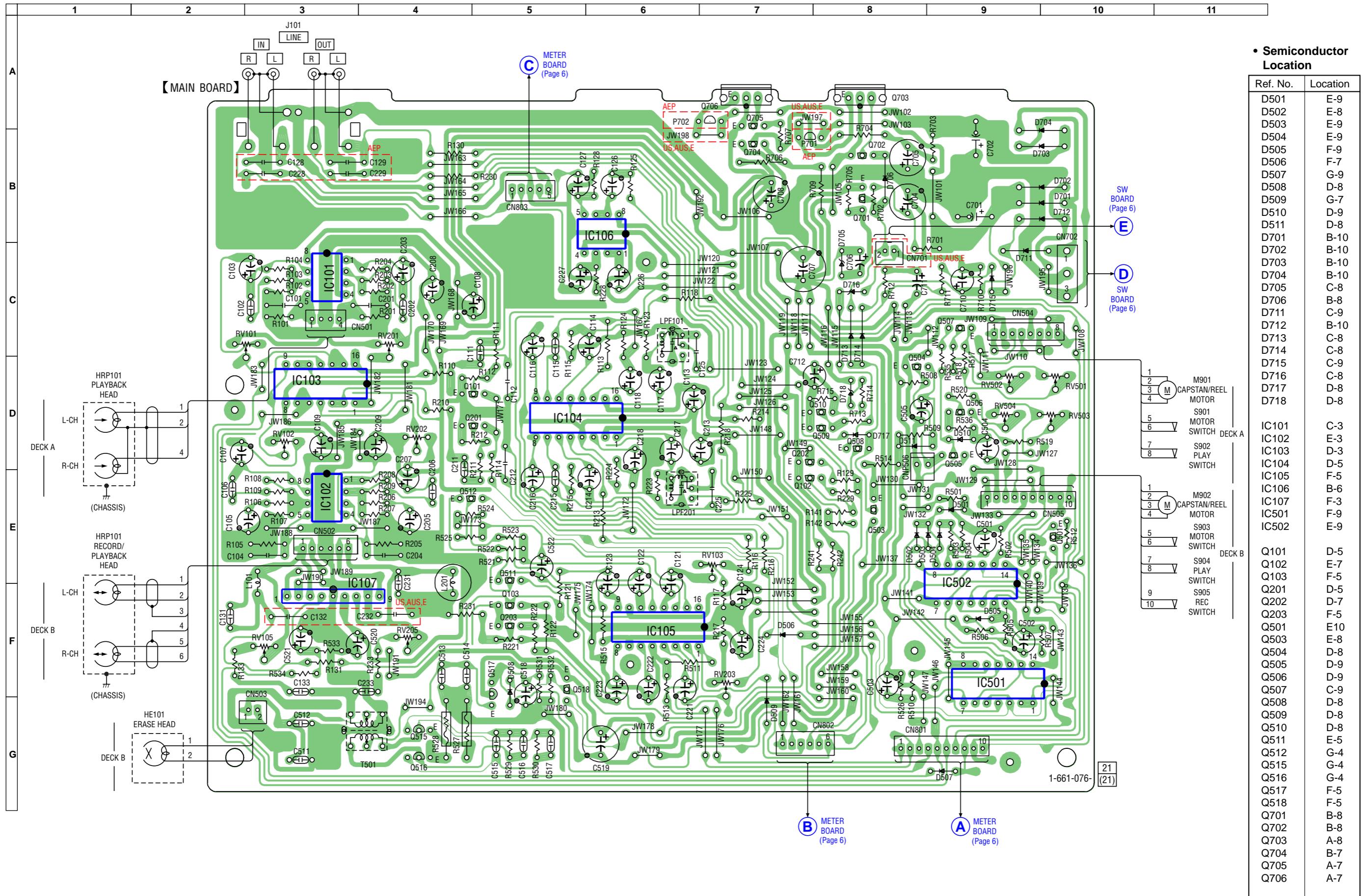
● CHANGE OF MAIN BOARD

The main, SW and meter boards of US, AEP, Australian and E model were changed (CND, SP and PX model are not changed). Printed wiring board and schematic diagram of new type, and changed parts list are described in this Supplement-1. Refer to original service manual (9-960-691-13) previously issued for the other information.

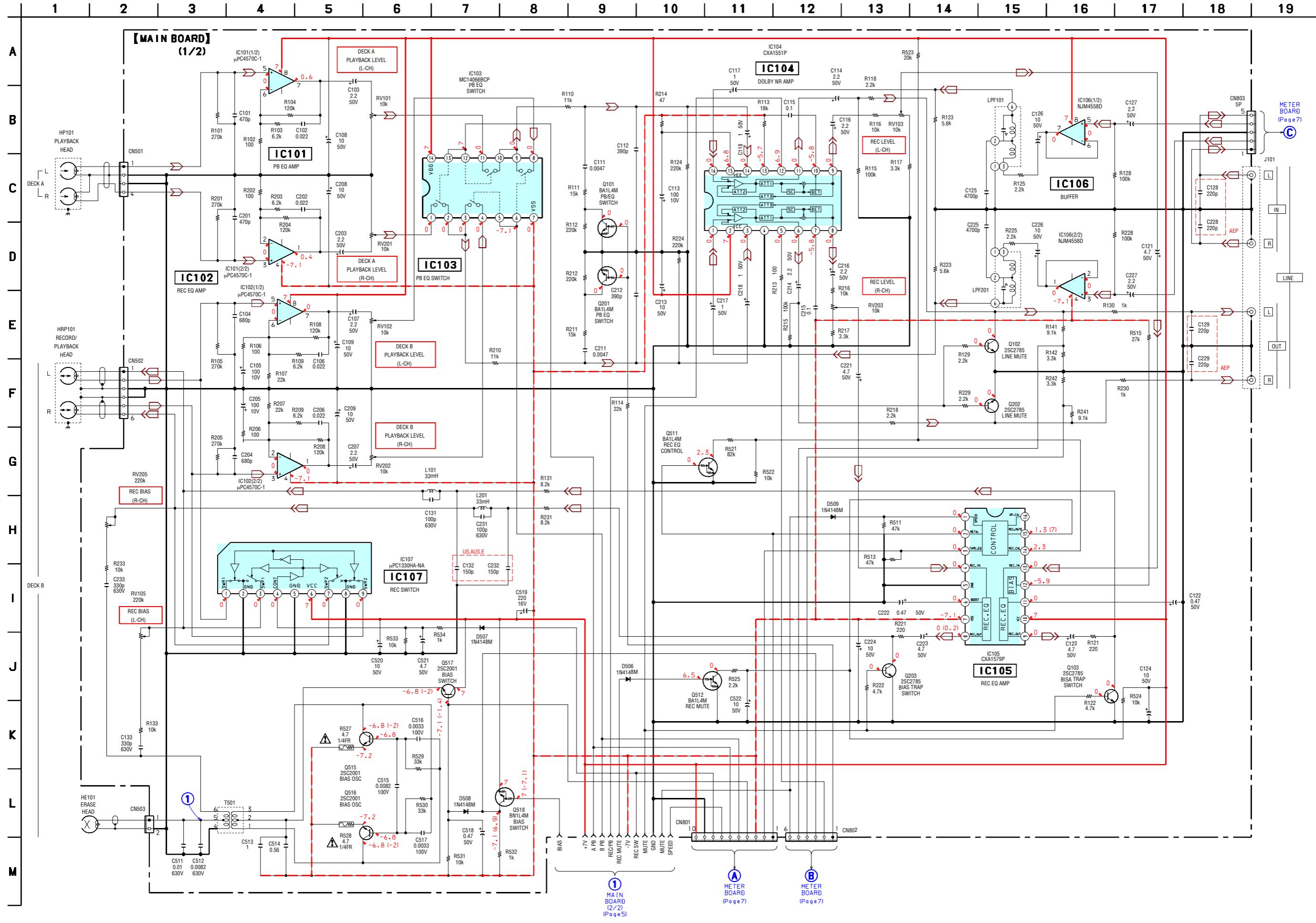
**NEW TYPE IDENTIFICATION
(US, AEP, Australian, E model)**

DIAGRAMS

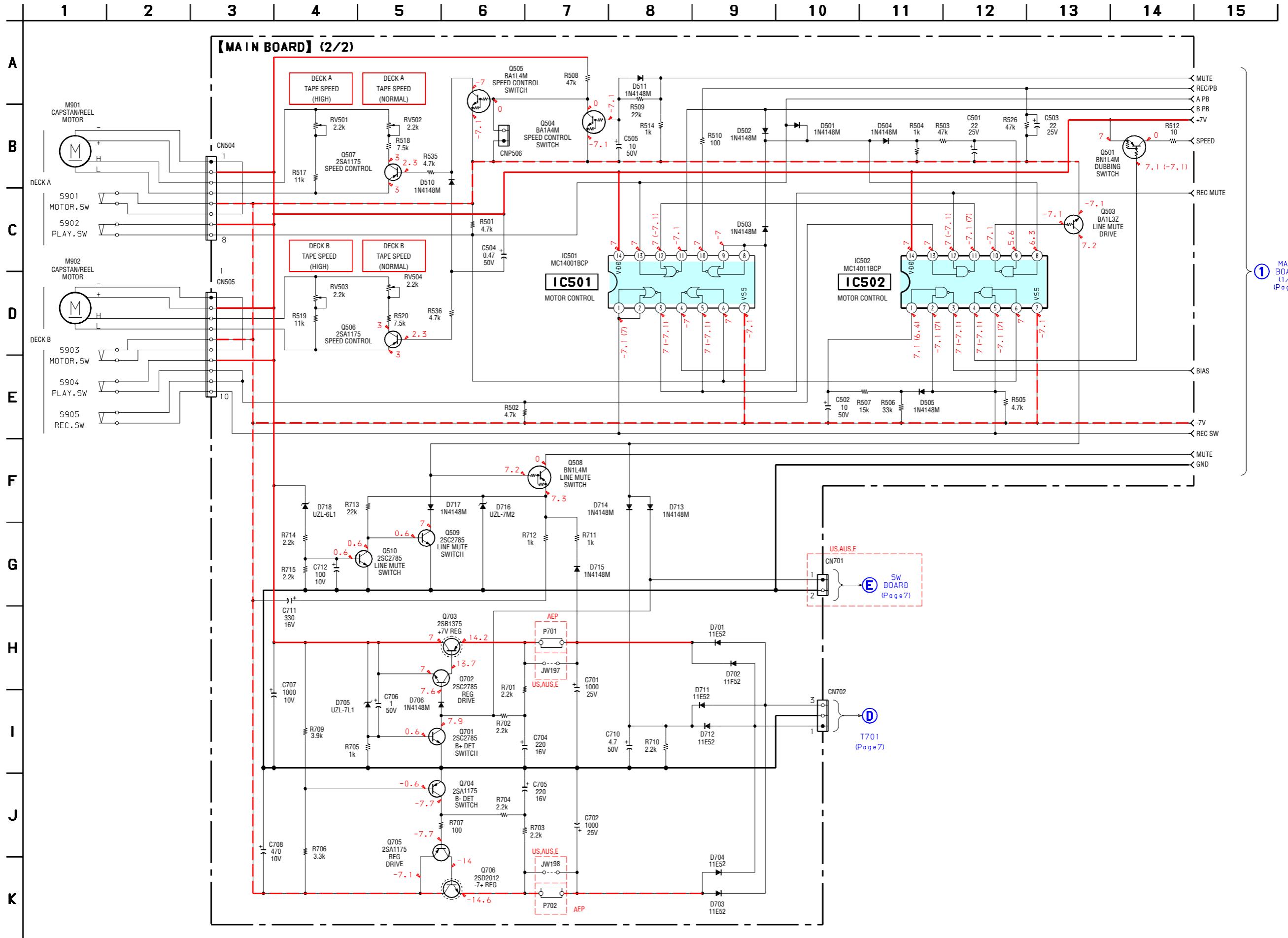
PRINTED WIRING BOARDS -MAIN Section-



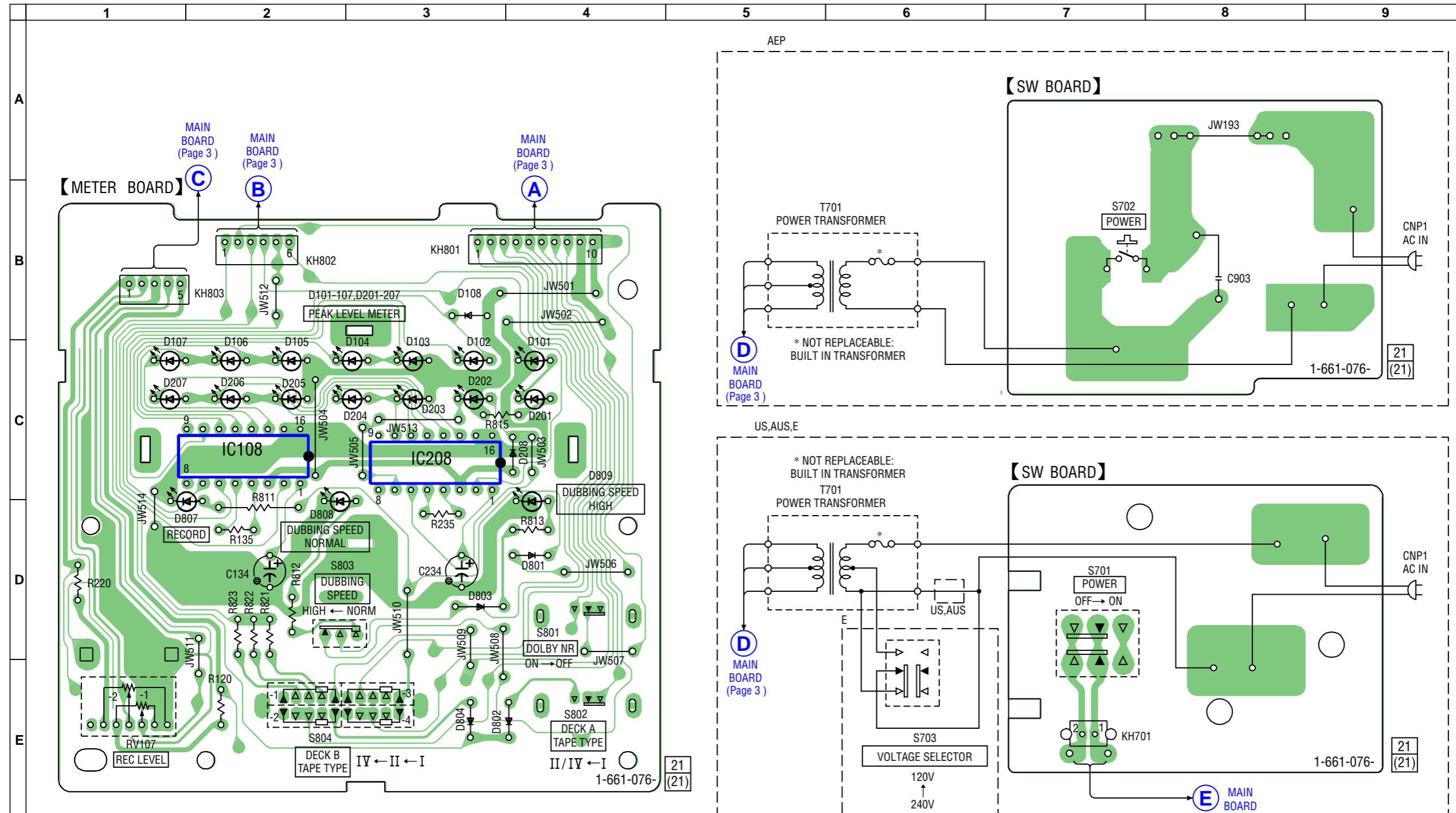
SCHEMATIC DIAGRAM – MAIN SECTION (1/2) –



SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –



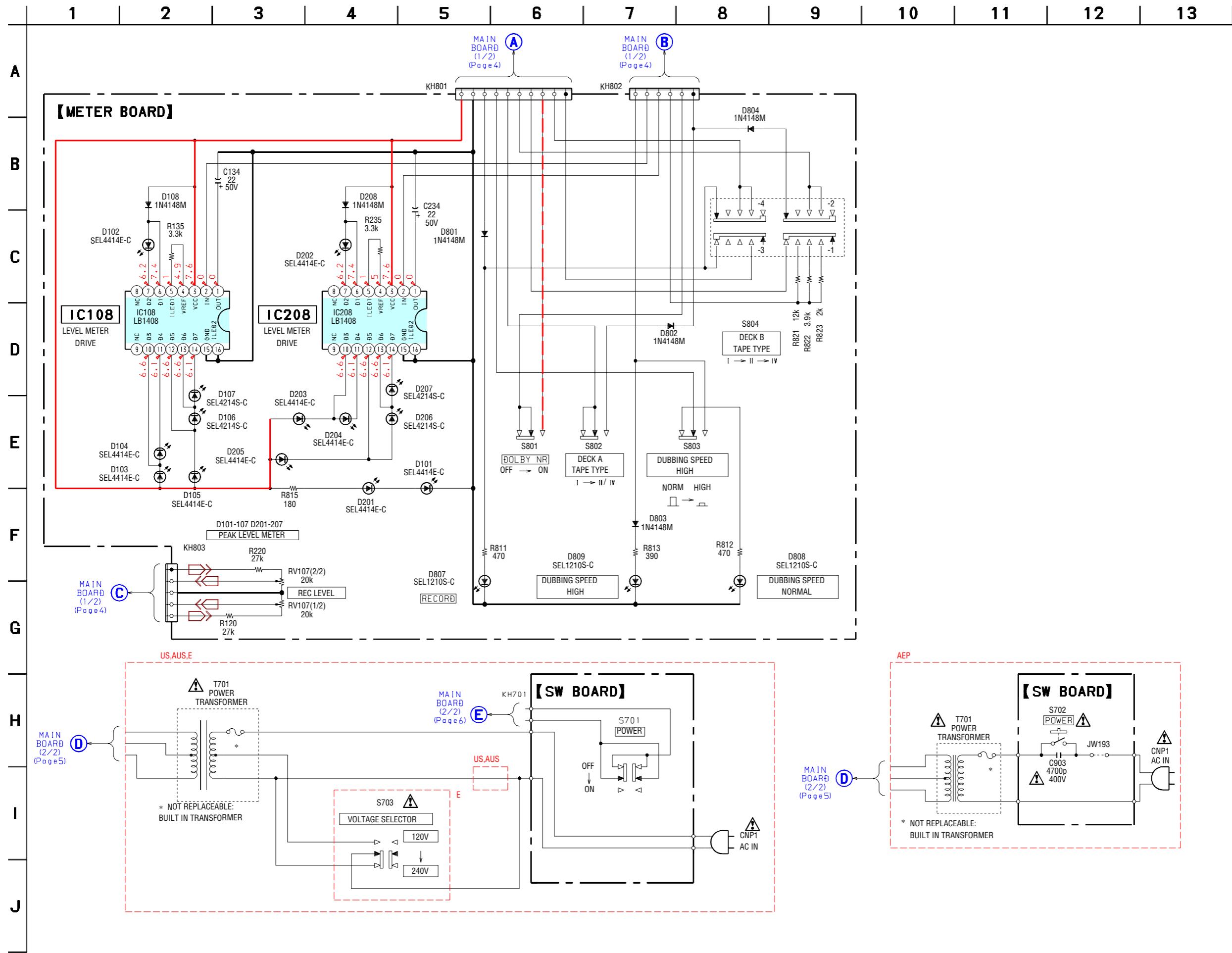
PRINTED WIRING BOARDS -SW, METER Section-



• Semiconductor Location

Ref. No.	Location
D101	C-4
D102	C-3
D103	C-3
D104	C-3
D105	C-2
D106	C-2
D107	C-1
D108	B-3
D201	C-4
D202	C-3
D203	C-3
D204	C-3
D205	C-2
D206	C-2
D207	C-2
D208	C-1
D209	C-4
D801	D-4
D802	E-4
D803	D-3
D804	E-3
D807	D-2
D808	D-2
D809	C-4
IC108	C-2
IC208	C-3

SCHEMATIC DIAGRAM -SW, METER Section-



For schematic diagrams.**Note:**

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- % : indicates tolerance.
- \triangle : internal component.
- fusible resistor : fusible resistor.
- panel designation : panel designation.

Note:
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

- — : B+ Line.
- --- : B- Line.
- $\boxed{\text{—}}$: adjustment for repair.
- Voltages are dc with respect to ground under no-signal conditions.
no mark : PLAY
() : REC
- Voltages are taken with a VOM (Input impedance $10\text{ M}\Omega$).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.

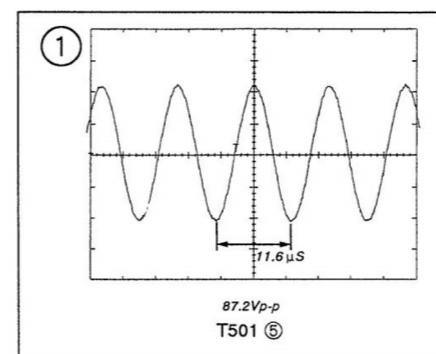
\rightrightarrows : PB (DECK A)
 \rightarrow : PB (DECK B)
 \Rightarrow : REC (DECK B)

- Abbreviation
AUS : Australian

Note on Printed Wiring Boards:**Note:**

- — : parts extracted from the component side.
- \triangle : internal component.
- $\boxed{\text{—}}$: Pattern from the side which enables seeing.

- Abbreviation
AUS : Australian

• Waveforms

ELECTRICAL PARTS LIST

MAIN

SW

METER

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE :Metal oxide-film resistor
F : nonflammable
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u : μ , for example :
 $uA....$: $\mu A....$, $uPA....$: $\mu PA....$
 $uP....$: $\mu PB....$, $uPC....$: $\mu PC....$
 $uPD....$: $\mu PD....$

• CAPACITORS

 uF : μF

• COILS

 uH : μH

• Abbreviation

AUS : Australian

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark			
*	A-2007-564-A	MAIN BOARD, COMPLETE (US,AUS,E)				C202	1-136-157-00	MYLAR	0.022uF	5%	50V			
*	A-2007-589-A	MAIN BOARD, COMPLETE (AEP)			*****	C203	1-126-961-11	ELECT	2.2uF	20%	50V			
SW BOARD														

METER BOARD														

*	1-535-688-11	TERMINAL (US,AUS,E)				C206	1-136-157-00	MYLAR	0.022uF	5%	50V			
<CAPACITOR>														
C101	1-162-290-31	CERAMIC	470PF	10%	50V	C207	1-126-961-11	ELECT	2.2uF	20%	50V			
C102	1-136-157-00	MYLAR	0.022uF	5%	50V	C208	1-126-964-11	ELECT	10uF	20%	50V			
C103	1-126-961-11	ELECT	2.2uF	20%	50V	C209	1-126-964-11	ELECT	10uF	20%	50V			
C104	1-162-292-31	CERAMIC	680PF	10%	50V	C211	1-130-479-00	MYLAR	0.0047uF	5%	50V			
C105	1-104-665-11	ELECT	100uF	20%	10V	C212	1-162-289-31	CERAMIC	390PF	10%	50V			
C106	1-136-157-00	MYLAR	0.022uF	5%	50V	C213	1-126-964-11	ELECT	10uF	20%	50V			
C107	1-126-961-11	ELECT	2.2uF	20%	50V	C214	1-126-961-11	ELECT	2.2uF	20%	50V			
C108	1-126-964-11	ELECT	10uF	20%	50V	C215	1-136-165-00	MYLAR	0.1uF	5%	50V			
C109	1-126-964-11	ELECT	10uF	20%	50V	C216	1-126-961-11	ELECT	2.2uF	20%	50V			
C111	1-130-479-00	MYLAR	0.0047uF	5%	50V	C217	1-126-960-11	ELECT	1uF	20%	50V			
C112	1-162-289-31	CERAMIC	390PF	10%	50V	C218	1-126-960-11	ELECT	1uF	20%	50V			
C113	1-104-665-11	ELECT	100uF	20%	10V	C221	1-126-963-11	ELECT	4.7uF	20%	50V			
C114	1-126-961-11	ELECT	2.2uF	20%	50V	C222	1-124-902-00	ELECT	0.47uF	20%	50V			
C115	1-136-165-00	MYLAR	0.1uF	5%	50V	C223	1-126-963-11	ELECT	4.7uF	20%	50V			
C116	1-126-961-11	ELECT	2.2uF	20%	50V	C224	1-126-964-11	ELECT	10uF	20%	50V			
C117	1-126-960-11	ELECT	1uF	20%	50V	C225	1-162-600-11	CERAMIC	0.0047uF	30%	16V			
C118	1-126-960-11	ELECT	1uF	20%	50V	C226	1-126-964-11	ELECT	10uF	20%	50V			
C121	1-126-963-11	ELECT	4.7uF	20%	50V	C227	1-126-961-11	ELECT	2.2uF	20%	50V			
C122	1-124-902-00	ELECT	0.47uF	20%	50V	C228	1-162-286-31	CERAMIC	220PF	10%	50V			
C123	1-126-963-11	ELECT	4.7uF	20%	50V	C229	1-162-286-31	CERAMIC	220PF	10%	50V			
C124	1-126-964-11	ELECT	10uF	20%	50V	C231	1-136-433-11	FILM	100PF	5%	630V			
C125	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C232	1-162-284-31	CERAMIC	150PF	10%	50V			
C126	1-126-964-11	ELECT	10uF	20%	50V	C233	1-136-439-11	FILM	330PF	5%	630V			
C127	1-126-961-11	ELECT	2.2uF	20%	50V	C234	1-126-233-11	ELECT	22uF	20%	50V			
C128	1-162-286-31	CERAMIC	220PF	10%	50V	C235	1-126-233-11	ELECT	22uF	20%	50V			
			(AEP)			C501	1-126-233-11	ELECT	22uF	20%	50V			
C129	1-162-286-31	CERAMIC	220PF	10%	50V	C502	1-126-964-11	ELECT	10uF	20%	50V			
			(AEP)			C503	1-126-233-11	ELECT	22uF	20%	50V			
C131	1-136-433-11	FILM	100PF	5%	630V	C504	1-124-902-00	ELECT	0.47uF	20%	50V			
C132	1-162-284-31	CERAMIC	150PF	10%	50V	C505	1-126-964-11	ELECT	10uF	20%	50V			
			(US,AUS,E)			C511	1-136-601-11	FILM	0.01uF	5%	630V			
C133	1-136-439-11	FILM	330PF	5%	630V	C512	1-136-562-11	FILM	0.0082uF	5%	630V			
C134	1-126-233-11	ELECT	22uF	20%	50V	C513	1-136-177-00	MYLAR	1uF	5%	50V			
C201	1-162-290-31	CERAMIC	470PF	10%	50V	C514	1-136-174-00	MYLAR	0.56uF	5%	50V			
			(AEP)			C515	1-106-365-00	MYLAR	0.0082uF	5%	100V			
C516	1-106-355-12	MYLAR	3300PF	5%	200V	C517	1-106-355-12	MYLAR	3300PF	5%	200V			
C518	1-124-902-00	ELECT	0.47uF	20%	50V	C519	1-104-666-11	ELECT	220uF	20%	16V			

TC-WE305

MAIN	SW	METER						
Ref. No.	Part No.	Description						
C520	1-126-964-11	ELECT	10uF	20%	50V	D704	8-719-024-99	DIODE 11ES2-NTA2B
C521	1-126-963-11	ELECT	4.7uF	20%	50V	D705	8-719-933-43	DIODE HZS7A1LTA
C522	1-126-964-11	ELECT	10uF	20%	50V	D706	8-719-991-33	DIODE 1SS133T-72
C701	1-126-942-61	ELECT	1000uF	20%	25V	D711	8-719-024-99	DIODE 11ES2-NTA2B
C702	1-126-942-61	ELECT	1000uF	20%	25V	D712	8-719-024-99	DIODE 11ES2-NTA2B
C704	1-104-666-11	ELECT	220uF	20%	16V	D713	8-719-991-33	DIODE 1SS133T-72
C705	1-104-666-11	ELECT	220uF	20%	16V	D714	8-719-991-33	DIODE 1SS133T-72
C706	1-126-960-11	ELECT	1uF	20%	50V	D715	8-719-991-33	DIODE 1SS133T-72
C707	1-126-767-11	ELECT	1000uF	20%	10V	D716	8-719-933-47	DIODE HZS7B2LTA
C708	1-126-935-11	ELECT	470uF	20%	10V	D717	8-719-991-33	DIODE 1SS133T-72
C710	1-126-963-11	ELECT	4.7uF	20%	50V	D718	8-719-933-33	DIODE HZS6A1LTA
C711	1-126-940-11	ELECT	330uF	20%	16V	D801	8-719-991-33	DIODE 1SS133T-72
C712	1-104-665-11	ELECT	100uF	20%	10V	D802	8-719-991-33	DIODE 1SS133T-72
△C903	1-113-912-11	CERAMIC	0.0047uF	20%	400V	D803	8-719-991-33	DIODE 1SS133T-72
					(AEP)	D804	8-719-991-33	DIODE 1SS133T-72
						D807	8-719-302-46	DIODE SEL1210S-C-TP3 (RECORD)
						D808	8-719-302-46	DIODE SEL1210S-C-TP3 (DUBBING SPEED NORMAL)
						D809	8-719-302-46	DIODE SEL1210S-C-TP3 (DUBBING SPEED HIGH)
								<IC>
CN501	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				IC101	8-759-111-44	IC uPC4570C-1
* CN502	1-691-577-11	PIN, CONNECTOR (PC BOARD) 6P				IC102	8-759-111-44	IC uPC4570C-1
* CN503	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P				IC103	8-759-000-49	IC MC14066BCP
* CN504	1-691-579-11	PIN, CONNECTOR (PC BOARD) 8P				IC104	8-752-056-08	IC CXA1551P
* CN505	1-691-581-11	PIN, CONNECTOR (PC BOARD) 10P				IC105	8-752-055-62	IC CXA1579P
* CN701	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P				IC106	8-759-634-51	IC NJM4558D
* CN702	1-535-116-21	TERMINAL (US,AUS,E)				IC107	8-759-079-42	IC uPC1330HA-NA
* CN702	1-691-574-11	PIN, CONNECTOR (PC BOARD) 3P (AEP)				IC108	6-703-632-01	IC LB1408
* CN801	1-691-581-11	PIN, CONNECTOR (PC BOARD) 10P				IC208	6-703-632-01	IC LB1408
* CN802	1-691-577-11	PIN, CONNECTOR (PC BOARD) 6P				IC501	8-759-040-01	IC MC14001BCP
CN803	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P				IC502	8-759-140-11	IC MC14011BCP
* CNP506	1-560-060-00	PIN, CONNECTOR 2P						<JACK>
						J101	1-770-614-11	JACK, PIN 4P (LINE IN/OUT)
								<CABLE HOLDER>
D101	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				* KH701	1-573-287-11	HOLDER, CABLE 2P
D102	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)						<COIL>
D103	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				L101	1-410-781-11	INDUCTOR 33mH
D104	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				L201	1-410-781-11	INDUCTOR 33mH
D105	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)						<FILTER>
D106	8-719-304-32	DIODE SEL4214S-C-TP (PEAK LEVEL METER)				LPF101	1-233-380-11	FILTER, LOW PASS
D107	8-719-304-32	DIODE SEL4214S-C-TP (PEAK LEVEL METER)				LPF201	1-233-380-11	FILTER, LOW PASS
D108	8-719-991-33	DIODE 1SS133T-72						<IC LINK>
D201	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				△P701	1-532-984-11	IC LINK 2A 50V (AEP)
D202	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				△P702	1-532-984-11	IC LINK 2A 50V (AEP)
D203	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)						<TRANSISTOR>
D204	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				Q101	8-729-900-89	TRANSISTOR BA1L4M-TP
D205	8-719-304-37	DIODE SEL4414E-C-TP (PEAK LEVEL METER)				Q102	8-729-119-78	TRANSISTOR 2SC2785TP-HFE
D206	8-719-304-32	DIODE SEL4214S-C-TP (PEAK LEVEL METER)				Q103	8-729-119-78	TRANSISTOR 2SC2785TP-HFE
D207	8-719-304-32	DIODE SEL4214S-C-TP (PEAK LEVEL METER)				Q201	8-729-900-89	TRANSISTOR BA1L4M-TP
D208	8-719-991-33	DIODE 1SS133T-72						
D501	8-719-991-33	DIODE 1SS133T-72						
D502	8-719-991-33	DIODE 1SS133T-72						
D503	8-719-991-33	DIODE 1SS133T-72						
D504	8-719-991-33	DIODE 1SS133T-72						
D505	8-719-991-33	DIODE 1SS133T-72						
D506	8-719-991-33	DIODE 1SS133T-72						
D507	8-719-991-33	DIODE 1SS133T-72						
D508	8-719-991-33	DIODE 1SS133T-72						
D509	8-719-991-33	DIODE 1SS133T-72						
D510	8-719-991-33	DIODE 1SS133T-72						
D511	8-719-991-33	DIODE 1SS133T-72						
D701	8-719-024-99	DIODE 11ES2-NTA2B						
D702	8-719-024-99	DIODE 11ES2-NTA2B						
D703	8-719-024-99	DIODE 11ES2-NTA2B						

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	MAIN	SW	METER		
Q202	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R204	1-247-881-00	CARBON	120K	5%	1/4W		
Q203	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R205	1-247-889-00	CARBON	270K	5%	1/4W		
Q501	8-729-900-65	TRANSISTOR	BN1L4M-TP	R206	1-247-807-31	CARBON	100	5%	1/4W		
Q503	8-729-029-94	TRANSISTOR	BA1L3Z-TP	R207	1-249-433-11	CARBON	22K	5%	1/4W		
Q504	8-729-116-02	TRANSISTOR	BA1A4M-TP	R208	1-247-881-00	CARBON	120K	5%	1/4W		
Q505	8-729-900-89	TRANSISTOR	BA1L4M-TP	R209	1-247-850-11	CARBON	6.2K	5%	1/4W		
Q506	8-729-119-76	TRANSISTOR	2SA1175TP-HFE	R210	1-247-856-00	CARBON	11K	5%	1/4W		
Q507	8-729-119-76	TRANSISTOR	2SA1175TP-HFE	R211	1-249-431-11	CARBON	15K	5%	1/4W		
Q508	8-729-900-65	TRANSISTOR	BN1L4M-TP	R212	1-247-887-00	CARBON	220K	5%	1/4W		
Q509	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R213	1-247-807-31	CARBON	100	5%	1/4W		
Q510	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R214	1-249-401-11	CARBON	47	5%	1/4W F		
Q511	8-729-900-89	TRANSISTOR	BA1L4M-TP	R215	1-249-441-11	CARBON	100K	5%	1/4W		
Q512	8-729-900-89	TRANSISTOR	BA1L4M-TP	R216	1-249-429-11	CARBON	10K	5%	1/4W		
Q515	8-729-142-46	TRANSISTOR	2SC2001TP-LK	R217	1-247-843-11	CARBON	3.3K	5%	1/4W		
Q516	8-729-142-46	TRANSISTOR	2SC2001TP-LK	R218	1-249-421-11	CARBON	2.2K	5%	1/4W F		
Q517	8-729-142-46	TRANSISTOR	2SC2001TP-LK	R220	1-249-434-11	CARBON	27K	5%	1/4W		
Q518	8-729-900-65	TRANSISTOR	BN1L4M-TP	R221	1-249-409-11	CARBON	220	5%	1/4W F		
Q701	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R222	1-249-425-11	CARBON	4.7K	5%	1/4W F		
Q702	8-729-119-78	TRANSISTOR	2SC2785TP-HFE	R223	1-249-426-11	CARBON	5.6K	5%	1/4W		
Q703	8-729-209-60	TRANSISTOR	2SB1375	R224	1-247-887-00	CARBON	220K	5%	1/4W		
Q704	8-729-119-76	TRANSISTOR	2SA1175TP-HFE	R225	1-249-421-11	CARBON	2.2K	5%	1/4W F		
Q705	8-729-119-76	TRANSISTOR	2SA1175TP-HFE	R228	1-249-441-11	CARBON	100K	5%	1/4W		
Q706	8-729-209-15	TRANSISTOR	2SD2012	R229	1-249-421-11	CARBON	2.2K	5%	1/4W F		
	<RESISTOR>				R230	1-249-417-11	CARBON	1K	5%	1/4W F	
	<RESISTOR>				R231	1-249-428-11	CARBON	8.2K	5%	1/4W F	
R101	1-247-889-00	CARBON	270K	5%	1/4W	R233	1-249-429-11	CARBON	10K	5%	1/4W
R102	1-247-807-31	CARBON	100	5%	1/4W	R235	1-247-843-11	CARBON	3.3K	5%	1/4W
R103	1-247-850-11	CARBON	6.2K	5%	1/4W	R241	1-247-854-11	CARBON	9.1K	5%	1/4W
R104	1-247-881-00	CARBON	120K	5%	1/4W	R242	1-247-843-11	CARBON	3.3K	5%	1/4W
R105	1-247-889-00	CARBON	270K	5%	1/4W	R501	1-249-425-11	CARBON	4.7K	5%	1/4W F
R106	1-247-807-31	CARBON	100	5%	1/4W	R502	1-249-425-11	CARBON	4.7K	5%	1/4W F
R107	1-249-433-11	CARBON	22K	5%	1/4W	R503	1-249-437-11	CARBON	47K	5%	1/4W
R108	1-247-881-00	CARBON	120K	5%	1/4W	R504	1-249-417-11	CARBON	1K	5%	1/4W F
R109	1-247-850-11	CARBON	6.2K	5%	1/4W	R505	1-249-425-11	CARBON	4.7K	5%	1/4W F
R110	1-247-856-00	CARBON	11K	5%	1/4W	R506	1-249-435-11	CARBON	33K	5%	1/4W
R111	1-249-431-11	CARBON	15K	5%	1/4W	R507	1-249-431-11	CARBON	15K	5%	1/4W
R112	1-247-887-00	CARBON	220K	5%	1/4W	R508	1-249-437-11	CARBON	47K	5%	1/4W
R113	1-215-451-00	METAL	18K	1%	1/4W	R509	1-249-433-11	CARBON	22K	5%	1/4W
R114	1-249-433-11	CARBON	22K	5%	1/4W	R510	1-247-807-31	CARBON	100	5%	1/4W
R115	1-249-441-11	CARBON	100K	5%	1/4W	R511	1-249-437-11	CARBON	47K	5%	1/4W
R116	1-249-429-11	CARBON	10K	5%	1/4W	R512	1-249-393-11	CARBON	10	5%	1/4W F
R117	1-247-843-11	CARBON	3.3K	5%	1/4W	R513	1-249-437-11	CARBON	47K	5%	1/4W
R118	1-249-421-11	CARBON	2.2K	5%	1/4W F	R514	1-249-417-11	CARBON	1K	5%	1/4W F
R120	1-249-434-11	CARBON	27K	5%	1/4W	R515	1-215-455-00	METAL	27K	1%	1/4W
R121	1-249-409-11	CARBON	220	5%	1/4W F	R517	1-247-856-00	CARBON	11K	5%	1/4W
R122	1-249-425-11	CARBON	4.7K	5%	1/4W F	R518	1-247-852-11	CARBON	7.5K	5%	1/4W
R123	1-249-426-11	CARBON	5.6K	5%	1/4W	R519	1-247-856-00	CARBON	11K	5%	1/4W
R124	1-247-887-00	CARBON	220K	5%	1/4W F	R520	1-247-852-11	CARBON	7.5K	5%	1/4W
R125	1-249-421-11	CARBON	2.2K	5%	1/4W F	R521	1-249-440-11	CARBON	82K	5%	1/4W
R128	1-249-441-11	CARBON	100K	5%	1/4W	R522	1-249-429-11	CARBON	10K	5%	1/4W
R129	1-249-421-11	CARBON	2.2K	5%	1/4W F	R523	1-247-862-11	CARBON	20K	5%	1/4W
R130	1-249-417-11	CARBON	1K	5%	1/4W F	R524	1-249-429-11	CARBON	10K	5%	1/4W
R131	1-249-428-11	CARBON	8.2K	5%	1/4W F	R525	1-249-421-11	CARBON	2.2K	5%	1/4W F
R133	1-249-429-11	CARBON	10K	5%	1/4W	R526	1-249-437-11	CARBON	47K	5%	1/4W
R135	1-247-843-11	CARBON	3.3K	5%	1/4W	▲ R527	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R141	1-247-854-11	CARBON	9.1K	5%	1/4W	▲ R528	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R142	1-247-843-11	CARBON	3.3K	5%	1/4W	R529	1-249-435-11	CARBON	33K	5%	1/4W
R201	1-247-889-00	CARBON	270K	5%	1/4W	R530	1-249-435-11	CARBON	33K	5%	1/4W
R202	1-247-807-31	CARBON	100	5%	1/4W						
R203	1-247-850-11	CARBON	6.2K	5%	1/4W						

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

MAIN	SW	METER
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Ref. No.	Part No.	Description			Remark
R531	1-249-429-11	CARBON	10K	5%	1/4W
R532	1-249-417-11	CARBON	1K	5%	1/4W F
R533	1-249-429-11	CARBON	10K	5%	1/4W
R534	1-249-417-11	CARBON	1K	5%	1/4W F
R535	1-249-425-11	CARBON	4.7K	5%	1/4W F
R536	1-249-425-11	CARBON	4.7K	5%	1/4W F
R701	1-249-421-11	CARBON	2.2K	5%	1/4W F
R702	1-249-421-11	CARBON	2.2K	5%	1/4W F
R703	1-249-421-11	CARBON	2.2K	5%	1/4W F
R704	1-249-421-11	CARBON	2.2K	5%	1/4W F
R705	1-249-417-11	CARBON	1K	5%	1/4W F
R706	1-247-843-11	CARBON	3.3K	5%	1/4W
R707	1-247-807-31	CARBON	100	5%	1/4W
R709	1-249-424-11	CARBON	3.9K	5%	1/4W F
R710	1-249-421-11	CARBON	2.2K	5%	1/4W F
R711	1-249-417-11	CARBON	1K	5%	1/4W F
R712	1-249-417-11	CARBON	1K	5%	1/4W F
R713	1-249-433-11	CARBON	22K	5%	1/4W
R714	1-249-421-11	CARBON	2.2K	5%	1/4W F
R715	1-249-421-11	CARBON	2.2K	5%	1/4W F
R811	1-249-413-11	CARBON	470	5%	1/4W F
R812	1-249-413-11	CARBON	470	5%	1/4W F
R813	1-249-412-11	CARBON	390	5%	1/4W F
R815	1-249-408-11	CARBON	180	5%	1/4W F
R821	1-249-430-11	CARBON	12K	5%	1/4W
R822	1-249-424-11	CARBON	3.9K	5%	1/4W F
R823	1-247-838-00	CARBON	2K	5%	1/4W

<VARIABLE RESISTOR>

RV101	1-241-764-11	RES, ADJ, CARBON 10K (PB LEVEL L-CH) (DECK A)
RV102	1-241-764-11	RES, ADJ, CARBON 10K (PB LEVEL L-CH) (DECK B)
RV103	1-241-764-11	RES, ADJ, CARBON 10K (REC LEVEL L-CH)
RV105	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS L-CH)
RV107	1-223-850-11	RES, VAR, CARBON 20K/20K (REC LEVEL)
RV201	1-241-764-11	RES, ADJ, CARBON 10K (PB LEVEL R-CH) (DECK A)
RV202	1-241-764-11	RES, ADJ, CARBON 10K (PB LEVEL R-CH) (DECK B)
RV203	1-241-764-11	RES, ADJ, CARBON 10K (REC LEVEL R-CH)
RV205	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS R-CH)
RV501	1-241-762-11	RES, ADJ, CARBON 2.2K (TAPE SPEED HIGH) (DECK A)
RV502	1-241-762-11	RES, ADJ, CARBON 2.2K (TAPE SPEED NORMAL) (DECK A)
RV503	1-241-762-11	RES, ADJ, CARBON 2.2K (TAPE SPEED HIGH) (DECK B)
RV504	1-241-762-11	RES, ADJ, CARBON 2.2K (TAPE SPEED NORMAL) (DECK B)

<SWITCH>

S701	1-762-580-11	SWITCH, PUSH (1 KEY) (POWER) (US,AUS,E)
△S702	1-762-581-11	SWITCH, AC POWER PUSH (1 KEY) (POWER) (AEP)
S801	1-762-251-11	SWITCH, SLIDE (DOLBY NR)
S802	1-762-251-11	SWITCH, SLIDE (DECK A TAPE TYPE)
S803	1-762-747-11	SWITCH, PUSH (1 KEY) (DUBBING SPEED)
S804	1-762-748-11	SWITCH, SLIDE (DECK B TAPE TYPE)

<TRANSFORMER>

T501	1-427-780-11	TRANSFORMER, BIAS OSCILLATION
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The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.